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## Sorgo Department.

National Sugar Growers' Association.

OFFICERS FOR 1884.  
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Mr. Boomer Cannot Come.

EDITOR RURAL WORLD: It is with a  
good deal of regret that I am compelled  
to relinquish my visit to your Fair, where  
I had advertised exhibiting the Malignen  
Filter for sugar and cider. I have been  
delayed getting my sugar machinery into  
the Mechanic Fair until now, and cannot  
get at making up the cane grown by the  
Agricultural Society before Oct. 2nd.  
The farmers are already sending in their  
cane, and the consequence is I find it  
impossible to get away. I could wish  
the cane growers of your organization  
could send a delegation to witness the  
result of our new process. Should this  
prove what previous experiments lead  
us to anticipate, there will be no use for  
the adoption of the more expensive pro-  
cess of diffusion. During the latter part  
of the coming month our process will be  
tried on sugar cane from Louisiana; as  
50 tons for the experiment is to be  
shipped here by Ex-Governor Ames from  
his plantation. Very respectfully,  
O. F. BOOMER.

Boston, Sept. 28th, 1884.

Sugar from North Carolina.

EDITOR RURAL WORLD: As I am  
through crushing I will give you an idea  
of the results of the season's operations.  
My crop was but a small one but the  
cane turned out the best I ever had. I  
only planted four acres, all Amos, and  
only made 455 gallons sirup and 513 lbs.  
sugar, a sample of which is enclosed  
here with.

The sorghum cane is a singular one to  
me; from the same patch some would  
grain readily whilst other portions of it  
would not grain at all, both being boiled  
and generally treated in the same way.  
After all, I have sold 200 gallons of sirup  
at 40c by the barrel and some at 50c by  
the gallon and the sugar for the year  
for my own family use.

We have had a dry season here, no  
rain to warrant us in breaking land for  
wheat since the latter part of July, hence  
we have land broke and do not expect to  
get in more than half a crop. Corn is short  
too, on the same account and is selling  
here at 55c a bushel.

D. B. S.  
Brown's Summit, N. C., Oct. 1st, 1884.  
The sample of sugar cane to hand in  
the same letter and is first rate. As a  
sample of brown sugar we do not see how  
it could be improved and only wish that  
every family in North Carolina had as  
good and plenty of it. Keep the question  
before the people Bro. Smith until they all  
raise it to their heart's content.

Letter from A. J. Decker, Agent U. S. Agt.  
Dept. for Visiting Sorghum Factories, etc.,

EDITOR RURAL WORLD: I have re-  
ceived a number of letters recently, ask-  
ing me to visit their sorghum factories,  
and asking information relative to the  
sorghum exhibit at the World's Fair,  
at New Orleans, and by the way, I can  
answer all such inquiries, as I believe every  
sorghum factory of any importance has  
the RURAL WORLD and no paragraph  
concerning sorghum escapes notice.

First.—My instructions are to visit  
those factories that received the Com-  
missioner's award last year, and to note  
carefully any improvement in machinery  
and mode of manufacture to determine  
the advancement made, if any. Yet I  
have no doubt that any person making a  
successful effort in producing sugar from  
sorghum to any extent I would be directed  
to visit if he requested me to do so, and  
the Department would be glad to re-  
ceive a report of the operations, as the  
Hon. Commissioner has plainly expressed  
his policy in this matter, when he said  
he believed in recognizing successful  
effort in this industry where ever found.

Second.—There is a correspondence  
between the Hon. Commissioner of  
Agriculture and Hon. Geo. Y. Johnson,  
Superintendent of the Agricultural Department  
of the World's Fair and the Director  
General of the World's Fair.

Hon. Geo. Y. Johnson had arranged  
for a separate department for sugar, and  
had arranged for a suitable Superintendent,  
but when the matter was referred to the  
Director General, I suspect it was not  
favorably received, as I have heard  
nothing further on the subject except a  
letter asking me to give reasons for the  
sugar industry meriting a special divi-  
sion and increased premiums.

The answer to the question was that we  
are paying annually over one hundred  
million dollars for sugar imported from  
foreign countries, while private enter-  
prise has plainly demonstrated in a num-  
ber of localities, scattered over a scope of  
country from New Jersey to California,  
by successful effort in producing sugar in  
paying quantities of certain high com-  
mercial value from sorghum and beetroot,  
that this vast expenditure sent out of  
the country to reward foreign capital  
and labor can be used profitably in our  
own country in home production, and  
that this successful effort should be en-  
couraged by a special Department and  
liberal premiums.

To this no answer has been received,  
and if the industry has been ignored, as  
it seems to have been, every man that has  
expended time and money to develop and  
this industry should enter his protest and

make such a rattle that a reply would  
soon be forthcoming.

The answer from the Department of  
Agriculture was that Prof. Wiley and  
Mr. Saunders were appointed to collect  
samples of sorghum sugar for an exhibit  
at the World's Fair.

This will be very gratifying to the De-  
partment and the people generally for we  
know that these gentlemen will do credit  
to themselves and the industry. But it  
does not reach and bring out that class of  
samples produced by private enterprise,  
which has been most successful and to  
whom must look for a successful solu-  
tion of the question of entire home pro-  
duction.

A. J. DECKER.

Fond Du Lac, Wisconsin, Sept. 29th,  
1884.

The Sugar Bowl.

That good paper, the Sugar Bowl, pub-  
lished at New Iberia, Louisiana, and for  
many years devoted to the sugar indus-  
try of the South, comes to us this week  
changed in name, in form and in general  
make up. Instead of being the large  
four page paper as heretofore, it is now  
an eight page paper, and instead of being  
the "Sugar Bowl" only, it is The Sugar  
Bowl and Farm Journal of New Orleans.  
With addition to the name comes a  
valuable addition to the editorial and gen-  
eral reading matter of the paper, and  
whilst a valuable journal to all who read  
it before, will be found doubly valuable  
now, as a general farm journal, still  
specially devoted to the cultivation of  
ribbon cane sugar culture. We welcome  
the change as an evidence of a growing  
appreciation of enterprise, and wish its  
energetic publisher, Col. J. Y. Gilmore,  
the best of success. How it came to be  
so named is told by Col. Gilmore him-  
self in the initial number as follows:

"We are sure this number of our paper,  
in its new form and with its many im-  
provements, will be a pleasant surprise  
to all our readers. We are but now  
about to plan long since conceived  
—to establish in New Orleans a first-class  
agricultural weekly paper. Naturally  
of a cautious and prudent nature, we  
have perhaps waited too long to put into  
execution this design; but we wanted to  
be perfectly sure of success before ex-  
tending our field of operations.

Meeting our esteemed confrere, Col.  
Colman, of the RURAL WORLD, of St.  
Louis, in this city, two or three years  
ago, he inquired why the writer did not  
locate in New Orleans and establish a  
thorough agricultural journal, especially  
adapted to the South, and thus fill a want  
long felt? We then imparted to him our  
intent of doing so, at the same time  
telling him we were puzzled about the  
proper name for such a paper. He  
agreed with us that to drop the familiar  
title Sugar Bowl would be a mistake, and  
besides, the proposed journal should be  
an agricultural journal, and not a general  
one. Louisiana industries, cane culture and  
sugar manufacture. Thereupon it was  
decided that the Sugar Bowl should still  
exist—but what would be a proper and  
harmonious addenda, to embrace gen-  
eral agriculture? The most important of  
names, which, on reflection were dis-  
carded, when the practical Colonel said:  
"Your people above all things need to be-  
come farmers. You require less planta-  
tions and more farms, and consequently  
no title would be more appropriate than  
Farm Journal. Call the paper The Sugar  
Bowl and Farm Journal, and make it a  
journal of the farm." We were pleased  
with this union of names as it was simple  
and yet expressive, and during the inter-  
val, which since elapsed none better has  
occurred to us. If Col. Colman has for-  
gotten the circumstances, this will re-  
mind him that he has been instrumental  
in christening a journal which will long  
survive both of us.

The Hour and the Man.

There is a world of truth in the fol-  
lowing paragraph which is part of an article  
copied by the Iowa Homestead and cred-  
ited to an exchange. It needs not to be  
we declaim against Commissioner Lor-  
ing and his associates, but it is true, and  
it suffices us to know that the cultivation  
of the sugar cane, whether of the sorghum  
or the ribbon variety, is one of the most  
important interests known to American  
agriculture for the simple reason that  
it is paying our gold to foreign produc-  
ers to the tune of one hundred millions  
of dollars a year, and the amount is in-  
creasing rather than otherwise.

The paragraph referred to puts it  
terribly and briefly thus:  
"The United States have more reason  
to encourage sugar production than any  
other country ever had, and there is un-  
doubted proof that sugar may be pro-  
duced from sorghum in amount sufficient  
to meet every requirement, and at such  
low rate of cost that in the outset it may  
compete on even terms with foreign sug-  
ar burdened by impost, yet the work  
starts slowly, and there are discouraging  
things about it at this moment, make it  
doubtful whether we will, or should, not  
in the present decade prove the possi-  
bility of sorghum as a sugar plant in ac-  
tual production. Investigations by Dr.  
Collier, when chemist of the Department  
of Agriculture, established the possibility  
of extracting from sorghum sugar of the  
best quality, at low cost, and in amount  
limited only by the demands of com-  
merce. Yet the industry lags and there  
has been no progress made by the De-  
partment under the present Chief, who  
has seemed to be unreasonably hostile to  
the new industry led by bright prom-  
ises by his predecessor, Gen. LeDuc.

These questions may be answered defi-  
nitely by farmers who wish to see the new  
industry established. No matter whether  
the next administration be Republican  
or Democratic, the Department of Agri-

culture may be put in the line of progress  
if the farmers ask it.

Commissioner Le Duc may have been  
too enthusiastic, so possibly was Dr.  
Collier; and the charge may be true that  
Dr. Loring lacks the courage of those  
who know more and could do better, or  
of one who would pose less in the inter-  
est of New England agriculture. These  
may all be true, we are neither stating or  
questioning them though having, by the  
way, very decided convictions on the  
subject. They are not just now at issue.  
The point we wish to make is, that suc-  
cessful cultivation in this country is being  
purchased by us from foreign planters to  
the tune of one hundred millions of dol-  
lars a year whilst it ought to be raised at  
home.

The people of the United States are  
paying more for foreign sugar than for  
all other foreign farm products put to-  
gether and they know it; and, knowing  
it will, we hope, make the effort to se-  
cure a change.

The commissioner of agriculture was  
not the man to introduce the subject of  
sorghum cultivation to the farmers of  
the United States, but the man occupying  
that office is in a position to lend it  
the vast amount of aid or to retard its  
development pretty much as he pleases.  
It was after the plant had been popu-  
larized that the department took hold,  
and even then the farmers were ahead of  
it and have been ever since. This is evi-  
denced by the fact that when the Com-  
missioner attempted to produce sugar  
on his own chosen ground it cost him  
dollars per pound, and by the additional  
fact that when he called upon the grow-  
ers and manufacturers to produce their  
samples and tell how cheaply they had  
made the product he got all the evidence  
needed to prove to him that it could be,  
and was being, made at a price warrant-  
ing competition with the foreign made  
article.

Now when we talk of "the hour and  
the man" in this connection we mean  
that the commissioner of agriculture  
should know this entire country, and  
knowing it, employ the means at his  
disposal with a heartiness and vigor that  
conviction that there is something out-  
side of New England worthy of his ear-  
nest attention and careful husbanding;  
for whilst the farmers of the United  
States are able to make their own sugar  
it is impossible for the foreigner to con-  
vince the people to buy of foreign nations to  
the tune of one hundred millions of dol-  
lars every year. Readers of the RURAL  
WORLD are requested to think this sub-  
ject over and say what they think ought  
to be done.

Application of Sulphur.

PROF. H. H. WILEY.

The best way of applying sulphur to  
cane juices, especially when the manu-  
facture is carried on in a small way, is  
in the form of lime bi-sulphite and sul-  
phuric acid solution. A simple apparatus  
for making lime bi-sulphite is shown in  
Fig. 372. Milk of lime is placed in the  
tank A, of a density proportionate to  
the strength of the solution which is to  
be made. The furnace contains a re-  
tor, E, which is heated by the water in  
the tank. In such a retort cannot be had,  
and large stone jug well glazed inside, can  
be used. This must be placed in a sand  
bath, since it cannot be exposed directly  
to the fire. The fire should be made of  
such material as to allow of its easy ex-  
tinguishing. A gasoline stove would be much  
better than the furnace figured. The re-  
tor, E, is nearly filled with charcoal in  
small pieces. Oil of vitriol (sulphuric  
acid) now poured in until the liquid  
fills a little more than half of the re-  
tor. The tube (lead or glass) P, connects the  
retort with the wash bottle, L. It should  
pass nearly to the bottom of the bottle.  
The wash bottle should be filled with  
water (to avoid accident in case of the  
retort falling over). The tube (B) should  
lead from a short distance below the  
level of the liquid in the wash bottle to  
the open air. The tube (C) begins just  
below the stopper of the wash bottle,  
and leads to the bottom of the barrel.  
(B). To make a barrel of bi-sulphite  
with this apparatus, the following pro-  
cedure is followed:

The barrel (B) is filled with milk of  
lime from the retort, and the sulphuric  
acid and charcoal, and sulphuric acid, is  
slowly heated until the gas passes freely  
through the wash bottle. The wash bot-  
tle should be of glass, so that the speed  
of evolution of the gas can be easily ob-  
served. The sulphuric acid is poured  
up through the milk of lime, combining  
with the lime to form bisulphite of lime.  
Through an opening in the top of the  
barrel its contents can be stirred, and the  
excess of lime prevented from settling  
to the bottom. As the lime is gradu-  
ally neutralized, the contents of the  
barrel become clear. After the lime is  
all combined with the sulphuric acid, the  
operation is continued until the water  
pressure is saturated, also with the  
gas. At the end the sulphur fumes  
escape from the top of the barrel, and its  
contents are strongly acid to the test  
paper.

The product can now be drawn off  
and the process repeated. A little ex-  
perience will show how often the retort  
is to be recharged. The sulphur-dioxide,  
which is made in the manner just de-  
scribed, contains an equivalent amount  
of carbon dioxide. This gas at first  
combines with the lime, but is finally al-  
displaced by the excess of sulphurous  
acid. A convenient strength for bisul-  
phite solution is 10°. When of this  
density, it contains about 7 per cent. by  
weight of SO<sub>2</sub>. When made at home it  
can be used in a more dilute form. The  
bisulphite used by the Rio Grande N. J.  
Co., is made much stronger than 10° B.

I think it would be well for every one  
making up a considerable quantity of  
sorghum sirup, to construct a simple  
apparatus like the one described. He  
should, however, remember that even an

apparatus so simple may give trouble in  
its use, and that patience and experience  
are factors that are always valuable and  
useful.

Let me, in closing this letter on sul-  
phur, protest against the frauds that are  
sometimes perpetrated on farmers by  
selling them mysterious liquids and  
chemicals for purifying the juice. These  
are mostly useless, and, when valuable,  
they will be found bi-sulphites in dis-  
guise. Sorghum juice will do very well  
with two simple remedies, and should  
not be doctored to death. These medi-  
cines are lime and sulphur. There is lit-  
tle hope of good from anything more,  
although there are many chemicals, like  
alum and sugar-of-lead, that help to  
purify the juice. They are, however,  
either too costly or too poisonous for  
general use.—Rural New Yorker.

A Pure Article of Sugar from Sorghum.

The Franklin Sugar and Sirup Com-  
pany is a new enterprise just started at  
Franklin, Tenn., with a capital stock of  
about \$75,000. The building is large  
and commodious, the machinery new and  
adequate to the purposes, and the capac-  
ity of the manufactory (or refinery, as it  
is called) is about 1,000 pounds of much  
sugar per day. It was located at Frank-  
lin, with three auxiliaries in the neighbor-  
hood, because that is the best locality  
convenient to Nashville to grow sorghum  
cane. The auxiliaries are small concerns  
for making lime bi-sulphite in the neigh-  
borhood, and is then shipped to the  
refinery for completion. Thinking a  
specific account of how sugar is made  
from the ordinary sorghum cane would  
be interesting to the public, a Banner  
man reporter in a special trip to Frank-  
lin for the necessary facts in the case for  
such an article.

The raw cane, without stripping or  
dressing in any manner, is placed length-  
wise on an endless carrier which runs in-  
to the building, and through two power-  
ful mills or corrugated crushers where  
every particle of juice is mashed out; and  
falls into a tank below. The cane is car-  
ried off and spread out to dry and after-  
wards used as fuel in the furnace. All  
varieties of cane are used. The boilers  
are connected with three lines of piping,  
power, with three engines of sixty, fifty  
and ten horse-power respectively. The  
water supply is obtained from the  
river near at hand by a pump which fur-  
nishes 30,000 gallons per hour, and is  
all used. Most of this water is consumed  
in connection with the vacuum pan where  
the crystallization of the sugar takes  
place, as will be seen hereafter.

When the juice is obtained from the  
cane it is pumped into the top story into  
a tank or defecator, of which there are  
four, with a capacity of 500 gallons  
each. Here it is treated with lime, to  
remove certain impurities and sediments,  
being heated at the same time to a cer-  
tain temperature by means of steam  
pipes. The whole process of cooking is  
done with steam pipes, two or three  
inches in diameter, and it may be well  
to remark here that the piping of the  
concern costs \$5,000. These defecators  
are connected with three lines of piping,  
one for water to wash them out, and  
other to admit the fresh juice into the  
top to let the defecated juice out. To  
determine when the defecating process  
has continued long enough, a piece of  
blue litmus paper is dipped into the  
juice. If the juice is still acid, it red-  
dies the litmus. When the acid is ex-  
actly neutralized the litmus remains un-  
changed. If too much lime is used, it  
changes a red litmus to blue. The acid  
taste of the sorghum is partly re-  
moved here.

The defecated juice is then run into  
the clarifiers—other large tanks, holding  
about 1,200 gallons. In these clarifiers  
it is cooked with an intense heat for a  
few minutes, and then the impurities  
gather in cooking is stroked off and run  
to the vat under the crushers, and again  
pumped into the defecators to prevent  
any waste of juice that might be and is  
taken off with it. The juice is run from  
the clarifiers into a large vat, and sub-  
mitted to a still greater heat—that  
of 23° Beaume. The Beaume scale  
shows the density of the juice, or sirup,  
for it is then in the state of semi-sirup.  
It is then run into the semi-sirup tanks,  
1,350 gallons each. This semi-sirup  
is run into filters, (there are six of these)  
which are nothing more than large  
boilers with outlets and filled with  
animal charred or burnt powdered bone.  
When filtered through this the sirup is  
purified and is free from that acid and  
bitter taste so peculiar to sorghum.  
Then it is conducted into other tanks and  
thence to the vacuum, where so much  
water is used, as intended above. In  
this vacuum the process of evaporation  
and condensation takes place so close  
one to the other that crystals begin to  
form in the sirup, producing what is  
called "melade," resembling a thick can-  
died honey. The melade is caught in  
large crystallizing or sugar wagons and  
stored away for a few days to give the  
crystals time to grow.

When the crystallizing process is com-  
pleted the "melade" is pumped from the  
wagons into a tank or horizontal cylin-  
der called the "mixer" within which re-  
volves a shaft carrying arms like a turbine  
water-wheel. From the mixer it passes  
to the centrifugal. The centrifugal is a  
perforated cylinder or basket, revolving  
within a fixed outer shell or hopper, at  
the rate of 1,300 to 4,000 revolutions per  
minute. The "melade" is dropped into  
the basket and the centrifugal force  
whirls the molasses through the perfora-  
tions leaving the sugar behind dry and  
ready for market. The molasses caught  
by the outer hopper is refined sirup,  
ready for table use, and both sugar  
and sirup are entirely free from the "sor-  
ghum taste." This sugar is known as  
"firsts." The sirup may be returned to  
the vacuum and about one-fourth more

sugar called "seconds" obtained. The  
sugar made at the Franklin refinery is a  
light brown, such as is used by most  
families, is very sweet, and is destined  
to take the front rank in the sugar mar-  
ket. These works were built by Smith,  
Gifford & Co., of this city, who are  
among the largest stockholders. Mr. W.  
H. Smith is managing the establishment,  
and is pushing the business with vigor.—  
Nashville Banner.

Sorghum in California.

The Anaheim Gazette says: F. A.  
Gates & Son, who for some years past  
have made a specialty of manufacturing  
sirup from sorghum cane, grown on  
their farm in Garden Grove, decided to  
experiment this year on an entirely dif-  
ferent soil, with a view of determining  
which would produce the best sirup.  
They rented a tract in North Anaheim,  
planted cane, got a splendid growth, and  
are now at work making sirup. They  
found that the sirup is far clearer than  
that they have heretofore made, which  
pleasing result they attribute to the ab-  
sence of alkali in the soil, that mineral  
being the cause of the turbidity of the  
very dark. They also find that the sirup  
granulates much quicker. J. Y. Ander-  
son, of Westminster, the only other ex-  
tensive grower of sorghum, is also mak-  
ing sirup, and reports a good crop and a  
good quality. The editor of the Gazette  
adds, regarding the quality of the sirup,  
that some time ago a prominent grocer  
of Los Angeles said: "I wish more of  
the sirup was manufactured in this  
country. There is a good demand for it,  
but the trouble is that just as soon as  
people acquire a taste for it, the supply  
gives out and none can be had. When  
the next season's crop is marketed the  
work of introducing the sirup has to be  
done over again. It is a pity that the  
producers if there was ten times the  
amount of sirup made."

Seth H. Kenny has commenced cut-  
ting his amber cane and assures us that  
it is the finest crop he has ever harvested.  
He expects to take samples of his prod-  
uct to the New Orleans exposition, and  
with the improvements he has made in  
manufacturing will be able doubtless to  
furnish an exhibit of which Minnesota  
may well be proud.—Fairbault, Minn.,  
Republican, Sept. 24th.

## Agricultural.

The Literature of Husbandry.

EDITOR RURAL WORLD: Occasionally  
far too infrequently a book is asked to  
name books desirable for a young farmer  
to purchase for his instruction in farm-  
ing. It would be difficult to name a  
subject of more importance to the in-  
dustry. For this reason I propose, in a  
general way, in this article, to consider  
the subject of farm literature in its rela-  
tion to husbandry. First, it may be  
noted as a general truth, not always ap-  
plicable, that farmers are entirely with-  
out books of any kind beyond one to five,  
and in the nature of accidentary pres-  
ence in the house. In justice to our in-  
dustry, it may be said that the same fact  
exists outside of the learned professions  
and in the ranks of the great industries,  
a few, in place of the avocations, having  
been, from a moderate to a good library.  
Again, I am told by an agricultural edi-  
tor of this State, that only about one  
to five farmers take an agricultural pa-  
per. There are special reasons why  
the farmer is so backward in acquiring  
papers and books, and become a  
generous reader of them.

Books are social, intellectual and in-  
dustrial factors. True in the first and  
second relations, for by informing the  
social powers are as susceptible of im-  
provement, thereby enlarging the depth and variety  
of material for mental digestion. As  
the mind, as well as the body, grows by  
exercise, our mental grasp is enlarged  
and intensified by a well perused library.

Our social powers are as susceptible of im-  
provement as are our mental faculties; and  
in an age when the press is one of the  
great moving forces, information is a  
prerequisite to the highest social enjoy-  
ment.

These trite observations are not in the  
range of my purpose to elucidate. I am  
led to the reflection by the most happy  
fact that no other industry demands a  
range of reading at once so broad and  
well calculated to develop both the so-  
cial and intellectual man. Deep design  
seems apparent in the equally important  
fact that no industrialist so needs bene-  
fitting, or rather may be so greatly bene-  
fited socially and intellectually by men-  
tal nutrition, as the farmer. His isolate  
life, wherein he works more nearly as a  
solitary unit than most others, places the  
book in a closer companionship to him,  
and gives the mental stimulus that he is  
unable to derive from society, than  
others are readily to pass.

The favorable peculiarity of farm litera-  
ture is that it brings the farmer more  
closely into the study of nature, from  
which all force, social, intellectual, in-  
dustrial and physical spring. Or, briefly  
stated, we have more to do with the nat-  
ural sciences than any industry or pro-  
fession. The sphere these sciences fill in  
social and intellectual life, are constant-  
ly broadening. There is more real satis-  
faction to-day in the comprehension of  
the beautiful laws of plant growth and  
how to mould them to our purpose, than  
in Latin. More real happiness and more  
opportunity to use it for personal satis-  
faction, is found in tracing the beau-  
tiful and useful relations of what is  
termed Chemistry, than there is in  
mastering the intricacies of law, civil  
engineering, etc. In short, Botany,  
Chemistry, Physiology, Anatomy, Met-  
eology, Mineralogy, Geology, Entomol-  
ogy, and Physics, are now necessary for  
what may be termed a social and intel-

lectual course of studies. We cannot  
now select \$25 worth of practical farm  
works with good judgment, without ob-  
taining books that will give us infor-  
mation in all these departments. Certainly  
only a smattering, but enough to accom-  
plish two purposes; namely, to inspire  
the young man to further enquiry, and to  
lift agriculture in the minds of old and  
young from a mere mechanical into an  
intellectual avocation. This done, the  
monotony of mere "brawn" farming is  
broken, the mind has problems to reflect  
upon, and the student replaces the mere  
laborer at the plow handles, the citizen  
farmer the mere farmer. In naming a  
list of books, I shall confine myself to  
rural works. A farmer's library is very  
narrowly selected if this confined. We  
have been the butt of the world's jokes  
since history began, for bo







## PEOPLE!

Read By All

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## Horticultural.

[Judge Samuel Miller, Bluffton, Mo., will assist in conducting the Horticultural Department in this journal. Any inquiries addressed to him will be promptly answered through the Rural World. His Express office address is Morrison, Gasconade county, Mo.]

## Notes from Samuel Miller.

PEACHES.—Of these the varieties are so numerous that it is hardly worth while to give a list, but the nurseryman who raises peach trees in any certain locality can best make the selection for his customers.

I expect to plant about 500 next spring or this fall, I get time. They will consist of Alexander's Gem, Alexander's River's Early, Hale's Early, Early Tilton, Baltimore Beauty, The Crawford, Old Moxon's, Wheatland, Park's Late, Heath Cling, etc. Besides these there are a number of new ones not yet fruited here that will have a place, such as Freeman's Late, Salway, Bonanza, Ruby Rheussnuck, Sally Willy, Reg-vette's Late, Begg's Mammoth, Cottage, Levi's Winter, and three seedlings of my own. And here it may be as well to answer the question frequently asked, "how that friend of ours got peaches this season?" on inquiry he told me that he held no secret in the matter; was simply to train the trees so as to get them, or suppose the branches, on the ground, and cover with some material to keep off the excessive cold winds. I do not see why the plan recommended for the fig tree in the north would not answer.

When planting, cut off the root pretty close up to the best root just opposite each other. Cut all the other roots close to the stem. Set these two roots outward and give the tree a stake for support. In the fall cut loose from the stake and bend or rather lay the tree down. The branches should also be taken off the sides, so that the tree would have a fan shape. Peg the trees down, and cover with straw, corn-fodder, weeds, or anything else of the kind. It will give the roots a strain, but they will overgrow.

I have a sloping piece of ground on which we intend planting peach trees, where there will be only a little more than half a right angle to be bent to, so that the strain will be much less. Others who have a hillside to plant upon will do well to take advantage of it. Of course as the trees get larger they will require a pretty strong post to sustain them through the summer. But there are many who will not begrudge all this trouble if sure of getting peaches, which they can almost to a surety. Those who will not do this, can wrap some branches with old clothes, gunny sacks, or the like, and have a few at least. Not only will this secure the buds from extreme degrees of cold in winter, but will destroy all our buds last winter, but will retard their blooming somewhat so as to escape late frosts in the spring.

I have gone into a more explicit detail in this laying down matter than I ever saw in print, but have not written more than deemed necessary to be fully understood. Now will try it and report in future. When we have gone to all this trouble, some seasons the trees standing may give fine crops and our labor be wasted, but we can stand that.

MELONS.—As we can now tell about as much as later about these we will do it.

Burpee's Mammoth Iron Clad is a very large and splendid melon in all respects, striped somewhat like the Gypsy, scaly bark, medium size, very fine rind, red flesh with white seed, so sweet as come, but a very fine flavor. Both on these vines and the Burpee's one of the rotted when small yet, but this may have been owing to their situation and the excessive wet weather. But when it comes down to the solid fact, the Orange will give more good melons with us than any other variety. Although the seeds I planted for Orange all looked right, there are in the patch quite a number that resemble the true, but have black seed instead of brown, and do not let loose from the shell like the true Orange, yet a disheartening lot of them respect.

We have kept the seeds separate, and many of the melons were true Orange; the chances are that there is a complete mixture, but for general purposes will answer very well. Seed of either or both of them will be for distribution the applicant furnishing stamps to pay postage on them and for an envelope to put them in.

STRAWBERRY PLANTS WITHOUT RUNNERS.—Some one asked not long ago whether there was such a thing, and was answered I believe that there was no such strawberry. But there is the white and the black Alpine never send out runners, but are multiplied by dividing the old plants.

If they are carefully dressed by keeping the dead leaves and stems from around the crown, and fresh rich earth put around them so as to prevent the crown and roots from becoming bare, they will in an ordinary season bear fine crops of small, sweet, soft, but not highly flavored fruit. If the impression of fifty years ago is correct, they bear during the whole summer, but of this I am not certain.

I will try and get plants of them if possible; find out what they are worth and report in future.

WEeping WILLOWS.—The American, Killmarnock, and others of this class are very ornamental, but must be planted in other stocks six to eight feet from the ground to have the finest appearance. A few days ago I saw a fine specimen of the American near New Florence, Mo., a Killmarnock willow about six inches growth on a silver-leaved maple the proper height, and feel a curiosity to learn how it will last.

FRUITS, ETC., RECEIVED.—The last mail brought me the following: From friend Fuller, of the N. Y. Sun, a box of nuts that are a treat indeed. The largest pecans I ever saw, filberts grown on his own ground, and hazelnuts different from any that I have seen. They are long and slim, real nut little things.

From John Balsiger, Highland, Illinois, a box of Golden Early Highlams, of very fair size, very fine in form, round and smooth, and the color its name denotes. One was ripe, and on eating it, and then comparing it with a ripe Boehringer of our own bed, find it not quite equal to the latter, but still quite good.

From Stark & Co., Louisiana, a box with a splendid Keiffer pear and a couple of novel little, yellow apples, long in form, nearly alike in diameter from stem to stem, not yet ripe; but the Keiffer was in good eating condition. I think we can decide on the merits of this pear for this section. The one alluded to we call good enough for any one. There is a peculiar flavor about it like I like, a little of the Bartlett and a touch of quince.

Another box of two monster Keiffers, quite green and hard yet, but which will

no doubt get good. Our own trees have also some on them and we will have a fair chance of testing them to our full satisfaction. My opinion of this pear has always been favorable.

Also some buds of the Blackman plum from H. M. Engle, of Marietta, Pa., for all which we return thanks.

FRUIT GROWING.—The importance of this branch of industry is not half appreciated in this part of the country.

In a trip of twenty-five miles in a northeastern direction, recently, I could not see a single apple in any orchard that looked fit to eat; in fact I did not see anything in all that distance that could be called an orchard; except at the far end of my visit there were two fine young ones just beginning to bear a few, also pear, plum, and quince trees. A specimen of the latter I brought home with me as a curiosity, as some of my children (born in Missouri) had never seen one. In two days' absence I became fruit hungry, and had not been home an hour before pears, apples, and a melon were dispatched.

That people can live without fruit, or with very little, and that of an indifferent quality, it is true, but I do not call it living in the full sense of the word.

To give us these useful and excellent gifts for our pleasure and benefit, and why not have them? Although we are going ahead in this State, we are far behind others.

In the reports received from other States, find an occasional address that is worth more alone, than many a book that has been printed. One of these I will copy and give for our readers, and am sure that all will see the sound doctrine and force of his argument. Will only take a part of it, as it would be too lengthy.

THAT BIG PEARSIMMON TREE.—Several have inquired about the success of the large tree we transplanted this spring. Up to this time, June 19th, it has not yet put out a leaf, but the twigs are not yet shriveled, so there is still some chance for it yet. One fortunate thing is, I have young trees of it growing.

Sept. 30th. The big tree is dead.

THE PANTRY.—About the 1st of March I sowed a packet of seed in a pan and plunged it into the hot bed, and when large enough to set out, my wife and daughters took them in hand, planting them in a circular bed in the angle of the house and kitchen, where they are shaded from the sun at noon for a few hours.

The little girl drove small stalks around the bed to keep the earth up, but this did not answer the purpose, so I got an old wagon tire, and, to my satisfaction, it happened to fit exactly. I call them "The Pantry" and "The Pantry" is it. There are twenty-five plants, and I counted six flowers open at one time, of as brilliant colors and fine forms as I ever saw. They all face the north, and when one passes them they seem to look up to you. The flowers are of a fine blue, never saw so fine a display of this little favorite. The package of seed cost 25 cents, but little trouble. In all my horticultural and floral operations, this is the first lot of them I ever raised.

How TO MANAGE AN OLD STRAWBERRY BED.—Just now we are cleaning between the rows, and laying all the runners between two rows, (we always plant two of a kind beside each other) and keep the alternate space clean as a walk.

In the space for runners they are left to run at liberty to make plants. When the bed is old we treat in like manner, except that in that case we will leave only about two or three new plants in run, keeping all the rest off, and in the fall dig the old plants under. Of course the runners left should be kept in a kind of row.

If, however, you want plants to set out, you can let them run, and they will cover the ground by fall, if a good season, and can be thinned out in the spring, but you will not get as fine fruit as if only a few new plants are allowed to set.

The Vick is an excellent fertilizer for Crescent, and the two will give as much fair-sized fruit as any other two kinds you can plant. Wilson is not worth its price. Lots of folks say they don't like it, but I have found it to be a good one. Sucker has not yet fruited here, but the plant looks well. There is no better time to apply manure than just as winter sets in. The winter rains and snows will carry the substance into the ground, and leave a nice mulch for the plants, and keep the fruit clean. I mean straw manure from the barnyard, if fine manure of any kind spread it on any time this summer, even before digging up the runners. Lots of folks say they don't like it, but I have found it to be a good one.

When dressed up the old plants to start their running, take all the dead leaves off and carry them off the ground. Just now, when the strawberries are about gone, we find as many as eight splendid ones on one Vick plant, and some are in blossom yet. Jersey Queen is also giving us some excellent berries yet.

In the article on strawberries last week, I gave simple facts, yet will not be guided entirely by this season's experience.

For instance, Pippen and O. I. Clad which did poorly, receiving the best care for next season. Perhaps they may do well then and some of these did so good well this season may not be so good next.

This shows the importance of having a variety.

In a future article I will tell how many strawberries a common family can use, so that a new planter will know how many plants he will need.

A plantation set out any time before the middle of September will yield a splendid crop of fruit next season. But to have that he must set out good plants and not such trash as some send out at \$2 per 1000, for such are not worth planting. I have before now got a lot of plants at high figures, that were just like the ones that I threw away. A man's time must be worth but little if he will take up 1000 good strawberry plants, dress them properly, and pack them for less than \$1.50.

And it is usually where beds are crowded and they would be (and should be) that these cheap ones are offered.

S. MILLER.

Bluffton, Mo.

The Niagara Grape.

We are in receipt of a basket of Niagara grapes from the well known grape propagator, T. S. Hubbard, of Fredonia, N. Y., who has been appointed by the owners their general agent for the introduction of the Niagara grapes in this section, as well as in quality, are as near perfection as we expect to see them for some time to come.

Mr. Hubbard writes us as follows: We send you a basket of Niagara grapes grown by Jonas Martin of Brocton, N. Y., where, during the past four years, over two hundred acres of this variety have been planted.

Mr. Martin has 47 acres of them 10x10 feet apart, and given ordinary vineyard culture. The vines on which these

grapes grew are four years old, and produced this season from 20 to 40 lbs. per vine. The clusters average nearly one-half pound each, and are of large and uniform size. Several single clusters weighed a pound each. One four-year-old vine produced eighty-eight clusters, which weighed exactly forty pounds, and notwithstanding this extraordinary yield, the fruit all ripened, and was picked at one picking less than a week after the first fruit in the vineyard was ripe, and before Concord were one-third of them picked. I think the Niagara will succeed as universally as the Concord.

It is a trifle earlier—less vigorous in growth, equally healthy and hardy, and produces from fifty to one hundred per cent. more fruit. The skin is more firm, making it a much better keeper and shipper than Concord. In quality, many good judges pronounce it very fine, while others think it but little, if any, better than the Concord. I think it will generally be called better.

All agents who have authority to sell the Niagara, will hold a certificate given under the corporate seal of the Niagara Vine & Fruit Company. To every vine sent out will be attached a metal seal, on N. Y. G. C., a fac simile of which is shown on the certificate of agency. This will effectually protect at least all who read the newspapers, from being swindled with spurious vines.

Yours,

T. S. HUBBARD.

Mr. N. H. Albright, the well known nurseryman, says the following varieties of apples have proved hardy in the Miami (Ohio) Valley:

Summer—Red Astrachan, Duchess, Tetsfiski, Madame Lewis, Yellow Transparent.

Autumn—Alexander, Fall Orange, Adams, Powell Beauty, St. Lawrence.

Winter—Bethel, Ben Davis (half hardy), Flory, Mann, Pewaukee, McIntosh Red, McMahon's White, Setter's Red, Talmor River, also Walter's Beauty, an independent, Hyslop and other Siberian apples. A full description of the above varieties is found in all leading nurserymen's catalogues.

A Noted Apiarist and Orchardist in Missouri.

—Three miles west of Waverly, in Lafayette county, Mo., is located a well-titled farm owned by H. S. Vananglen, a Jerseyman, who emigrated to this State in 1840. He is not only a successful orchardist, but a noted apiarist, and now has upwards of 100 hives of bees; he states that this season has been very unfavorable for the production of honey. Two years ago he sold \$1,200 worth of honey, and now has nearly a wagon load stored in pound boxes ready for market. He has two remarkably fine apple orchards, both belted by a handsome linden grove. The model and youngest orchard consists of 150 trees of the Ben Davis variety. They are now six years old, bearing, and have never been troubled with any serious diseases. He admits light, air and sunshine, three things essential to the production of a fine quality of fruit. The trees are remarkable for their uniformity of shape and size. The ground is sown to buckwheat, and the trees are covered with bees, and also he asserts, serves as a prophylactic for the borer, as it keeps the ground shaded nicely. That destructive enemy does not now assail his trees.

His largest and oldest orchard is composed of 1,200 bearing trees, and this season every tree in it is heavily laden with fruit. The writer has visited many celebrated orchards in various parts of our country, but never beheld one before in which there was not a single tree that was barren.

This extensive and successful fruit grower has erected a building and recently introduced two steam evaporators into it, and will soon have a large amount of dried fruit for the market. It is said that the season has been so favorable that he seems to be true in his case, as he has a superabundance of nice fruit, but unfortunately is located ten miles from a railway, and his barrels of fruit have to be hauled that distance over a very poor wagon road. Downy mildew has done him a great deal of damage, and perseverance will be thoroughly tested.—Ex.

Ripening and Marketing Pears.

A pear grower says buyers of fine fruits are always willing to pay roundly for appearance. Growers who realize this fact make the quickest sales and highest profits. By early in handling the fruit, and frequently get better prices for our pears in the Philadelphia markets, than do neighboring growers whose fruit is nearly or quite as fine as ours, but is not shipped in good condition or style. As soon as the pears will bear, they are ready to be marketed, and they are in eating condition, we carefully pick them by hand, generally in the afternoon when foliage and fruit are dry. The pears are then (as carefully as eggs) taken to an upstairs room, where during the season as a rule, which is cool and free from dampness, and heavy curtains are hung up—heavy hardware paper is cheap, and good for the purpose—to exclude the light. On the floor we spread sawdust, clean dry, and single the pears. On these are laid the pears, as closely together as possible without touching each other, and then covered with other blankets. In one to three or four days, according to ripeness when picked, the pears commence to color finely, as fast as they are colored properly, they are sorted, packed and shipped. Every time the pears are gone over, the specked or decayed ones must be taken out, those which are fit being placed in the house. As soon as they commence to color they should be examined daily. By handling carefully at all times the pears will stand up well for quite a long while after shipping, as there is then little danger of rotting from being handled in the house.

It is quite an art to pack fine fruit, especially pears, so they will catch the eye and the dollars of consumers, and it requires practice. We ship extra quality pears, in 60-quart strawberry chests, having 4 trays (2 tiers of 2 each) with 1-2 inch elastic on the bottom and the top trays, so they will not injure the fruit below. Each chest holds about 3 peach baskets. The pears are carefully laid in by hand, the top layer having the best colored side uppermost. Each tray is lined and the grapes covered with wax paper. This shows off the fruit by contrast. The name of each variety (never mix varieties) is written plainly on each tray, on the marginal paper. The trays are packed a little more than even full, so the lid of the chest when closed will firmly press on them without bruising, and prevent rotting. The chests are locked and consigned to some responsible commission man, who returns the empty chests and trays. We have frequently received \$8 to \$10 per

chest for pears so shipped, and could have sold ten times as many. The varieties most sought after are Bartlett, Duchess, Onondaga, Sheldon, etc.

Picking and Keeping Apples.

The profit to be derived from growing winter apples depends much upon how they are gathered, preserved and sold. For a greater part of the apple producing country it was expected that this would be a bearing year, and that the prices would be low, but the severe late frost of May destroyed the bloom on so wide a territory that the prospect now is quite favorable to remunerative prices for all the fine winter fruit that will be carefully picked and properly put up for market. The cold snap was so extensive throughout the country, and yet the frost skipped so many orchards, that it looks as if the bearing year for apples would be so divided on the orchards as to give growers a more uniform market for some years to come. The trees in many localities are loaded with all they can bear, and the weather has been favorable to continuous growth, so that the fruit will be comparatively large and sound. Over other large sections where apples are usually abundant there will not be a bushel of good apples to the acre, the frost having killed the bloom almost entirely, and what was left by the frost has since been destroyed by insects. In some localities where the crop is abundant, the apple maggot has increased to such an extent as to render much of the early fruit worthless, and also the sweet or table varieties of the late sorts. Where one finds his apples are infected badly with the maggot, he may as well give up all hopes of a satisfactory sale or interest in making any money from the crop at all for some years to come, or until more is learned of the habits of the insect and of methods for destroying it.

The requisites for keeping apples sound through the winter are careful picking, careful handling and cold storage. A bruised apple will surely rot in a very short time when placed in a temperature favorable to the ripening process. A perfectly sound apple in a clean, damp room will keep for a long time. The year's crop begins to grow. If one has a deep, cold cellar, where the temperature can be controlled, it will pay to store the crop for late market, but if such a cellar is not available, the crop had better be sold as picked from the trees. But however sold, they should be picked and handled with as much care as one would handle eggs. Our own method has been to take a long spring wagon to the orchard, and many bushel baskets as it will carry when filled; then pick the apples from the trees into small hand baskets that will hold a peck and a half, or thereabouts, and fill the large baskets from Mr. Y's two remarkable fine apple orchards, both belted by a handsome linden grove. The model and youngest orchard consists of 150 trees of the Ben Davis variety. They are now six years old, bearing, and have never been troubled with any serious diseases. He admits light, air and sunshine, three things essential to the production of a fine quality of fruit. The trees are remarkable for their uniformity of shape and size. The ground is sown to buckwheat, and the trees are covered with bees, and also he asserts, serves as a prophylactic for the borer, as it keeps the ground shaded nicely. That destructive enemy does not now assail his trees.

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By observing these rules some of our apple growers are successful in keeping winter apples about two months later than the season of the year, and they are very near to the freezing point. After a room is thoroughly cooled down to the proper temperature, keep it so by shutting out the outside air. Double doors will allow one to do this. In the winter, open the door to air it, or to take out fruit only when the weather is as cold as it is desirable to keep the air of the cellar. By observing these rules some of our apple growers are successful in keeping winter apples about two months later than the season of the year, and they are very near to the freezing point. After a room is thoroughly cooled down to the proper temperature, keep it so by shutting out the outside air. Double doors will allow one to do this. In the winter, open the door to air it, or to take out fruit only when the weather is as cold as it is desirable to keep the air of the cellar. By observing these rules some of our apple growers are successful in keeping winter apples about two months later than the season of the year, and they are very near to the freezing point. After a room is thoroughly cooled down to the proper temperature, keep it so by shutting out the outside air. Double doors will allow one to do this. In the winter, open the door to air it, or to take out fruit only when the weather is as cold as it is desirable to keep the air of the cellar.

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Mr. R. W. Stubbfield, of Bloomington, Ill., announces in this issue that he will sell his entire herd of horses, consisting of Norman and Clydesdale stallions, mares and colts at his own farm in that city on Tuesday, October 14th instant. The sale is a clearing out, in consequence of the expiration of the lease of his present farm, and his determination to move West.

From his announcement in his sale catalogue, we learn that the animals are all in good, thriving condition. They are, old enough, and are believed to be in foal to imported registered stallions. In blood and breeding, these offerings are unsurpassed. "I have no fear of being contradicted when I say that my animals have never been offered at public auction, either in quality or numbers. The stock sold will be put about the cars free of charge, but will be at buyer's risk as soon as bid off."

A credit of eight months, on approved notes, will be given, with a 6 per cent. interest. A discount of 4 per cent. from purchase price will be made for cash. In the sale will be found a number of imported stallions and mares of first class merit, and quite a number of grade mares, stallions and colts. It is a sale that will command attention, first because of the variety of stock to be sold, and again, because one can get a horse at a bargain. The catalogue is a pretty much a list of what is to be sold, and we shall expect to be able to report that many of the animals have been bought for Missouri. There is no class of farm stock we need not first class draft horses.

## Records Broken.

At Chicago, on October 3, the pacing record was broken by the gelding Johnnie, who paced in 2:30. The following account of the race is given:

The event of the day was the successful attempt of "Commodore Kittson's" pace, Johnnie, to lower his record of 2:10. The conditions were most favorable for speed, and the market was promised to stand at the high level for the list for a long time. He was given a warm-up heat in 2:19. Then he and Richbell were brought out and the judges announced that they would be started about four lengths apart. Not to pace against each other, but each to attempt to beat his own record, Richbell being 2:12, and Johnnie, 2:10. Johnnie reached the first quarter in 32 seconds, a 2:08 gain. Soon after passing the quarter Richbell made a bad break, and was jogged the rest of the way without an attempt to make time. Johnnie increased his speed slightly, reaching the half in 1:04, or at the rate of 2:07 for the mile, the second quarter being covered in 31 1/2 seconds. Along the third quarter some terrific fight was kept up, and the spectators began to cry, "He will beat it!" He flew to the three-quarter mark in 1:35, and the cry was, "He has it!" He won the race in 2:08, and the record was broken.

The closing event of the day was the attempt of the pacing mare, Minnie R., to beat her own record of 2:05. In this she was successful. The first quarter was paced in 31 1/2 seconds, half in 1:03, the three-quarters in 1:31 1/2, the mile in 2:04 1/2.

The best time at this year of going is Westmont's, 2:01 1/2. The third quarter in this heat was paced in 29 1/2 seconds, or at the rate of 1:30 for the mile.

To Make a Mare Allow Her Foal to Suck. Hit the mare securely to a strong ring or timber in a corner of a large stall, and put a bar across so that her right side may come against the partition on one side of the pen. This will bring another wall of the partition directly in front of her, so that she cannot go forward. Take a long leather strap with a buckle on one end, a pole strap to double across on a strong old back of single harness will answer. Take up the left fore foot, bending the knee so as to bring the foot well up to the back of her fore arm, just below the body, pass the strap twice around both fore arm and cannon bone and buckle tightly. After she finds she cannot free herself she will probably start quietly on three legs, when, with the assistance of one or two other parties, the foal can be placed so that he will soon be helping himself.

As gentle as possible, for her refusal to nurse the foal is probably due to much nervousness as anything. After she has nursed the foal, the youngest to take his milk without having her foot strapped up, and in a day or two will, in most cases, take proper care of it without assistance or care from any one. In very severe cases it may be necessary to put down posts to which strong planks can be nailed, and the mare, height, and two strong, short bars be arranged one in front of her breast, the other about the height of the breeching strap behind her. The posts can be set firmly into the ground, selecting a smooth, level spot. Lead her into the stall, and then strap her foot up, and in a short time the foal, with a little assistance, will have his fill.—American Cultivator.

## The Driving Horse.

No youth should be permitted to have, own or drive a good horse. The young man who understands how to care for it properly, and does so. The only way to keep a good horse, is by care. If you do not have to do the work yourself, it is necessary to know how, so you can intelligently direct the labor of others. Before starting for a long drive, do not, as some foolishly do, give your horse an extra heavy feed; but give him only his regular feed, and leave the extra for him when he comes back. Drive moderately for the first few miles, until your horse gets settled, then you can go faster without injury. Many a fine horse has been spoiled by feeding heavily, harnessing him, and then putting him down to his speed from the start. When returning, slow up and walk your horse, or only jog him, for a mile or so from home, if you have had a long or a spirited drive, so as to cool him off. It does not hurt a horse to water him when he is hot, even if he is warm, unless he is much over-heated. If you do not give him too much, and do not stop longer than to have him watered. The perspiring workers in the harvest-field drink liberally of water and keep on with their work without injury. It is only the extremes that work injury to man or beast. If the horse is warm when brought in, sponge on his mouth with cool water, and rub him down briskly with wisps of straw until he is dry, and walk him around if he is very warm, to cool off gradually. If the weather is hot, put him in the stable, let him remain unblanketed (unless he has been clipped), and out of a draught. If the weather is cold, put on a light cover until he cools off and dries, and afterwards blanket or not as has been the custom. Have the shoes reset once a month. Use plain shoes with the heels a

little thickened—not called or toed, and five nails will generally be enough. If properly put in. In times of ice and sleet when the roads are slippery use frost nails, renewed as often as necessary, and you will have no trouble from slipping.

Keep him on a ground floor, in the stall. If the feet become dry and hard do not use oil or grease, but clean off the feet, wash them in salt water, putting on each a time in a bucket, and then clean off with a time in a bucket. After this at night fill the foot with fresh cow dung, well pressed in, letting it remain in over night, and cleaning out next morning, and washing and churning as before. Two or three applications of this simple remedy will usually effect a cure. (Never use the packing remedia more than 12 to 15 hours at a time.—Ed.)

For a pulper or lugger use a large leather or rubber-covered bit, not a twisted or curb bit. We cured one of the worst luggers we ever owned by adopting just such a bit. The bit is cruel in the extreme and makes the horse much more desperate and dangerous. A little lined metal, given occasionally, will help to keep the coat bright and glossy.

If the horse has been out to grass and "slobered" badly, just before you are ready to start give him a head of cabbage—one which is not hard enough for use or sale will do—and it will remedy the unpleasant habit. In grain, oats—good, bright and clean—should be the principal food, with an occasional mess of cut feed, roots, etc., to break up the monotony. Hay, sweet timothy hay only. Pedigrees furnished. Safe arrival of stock guaranteed. No trouble to answer letters.

## Horse Notes.

—A spring colt should be weaned a little before winter in order that it may become used to the exchange of food with the weather, and warm and well plenty of succulent food can be had. Knowledge is an excellent feed for maintaining growth of colts and other young stock.

—Report says that a dose of vermifuge was lately administered to a California trotting horse known as James H., which was supposed to be suffering from worms. The medicine brought out a large quantity of worms, and as thick as the butt of a riding whip. The horse has heretofore been vicious and ungovernable, having killed one man and seriously injured another. Since the departure of his snakeskin James H., appears like a different animal.

—With heavy rains comes mud, and extra precaution should be taken to keep the fetlocks frequently and with warm castile soap-suds if there is any irritation of the skin; then, after wiping dry, apply a little lanolin or oil. Grease heel, or scratches, in cold weather is much more frequent and much more severe than in warm weather. It is best to keep the feet well oiled, and will never suffer from either, as the disorders are generally results of neglect.

—"Mr. McLaughlin," said the reporter, "you are beyond a doubt the favorite jockey of this country, and your career last year was something wonderful. Your winning the two trophies offered by The Sportsman for the jockey who won most money for his employers, and for the jockey who won most races, emphasized the fact which every man interested in the turf had recognized—that you were the most successful rider of flat races on this continent. Now, to what do you ascribe your success?"

"Well, I'm learning all the time. I love horses, and study their disposition. Horsemanship is a science. Now, there's Kinney, one of the grandest horses I ever rode, but if I touch him with the whip he swerves right away. Whereas, if I spur him, he answers if he can. If he cannot, I don't go on punishing him, because that would do no good. I just give him a touch of the spur to call him to me, and then I go on spurring him. His little ways, and what they can do. Miss Woodford I never whip nor spur, because it isn't necessary. I know that she will do all she can without it. I gave her the whip once, and he said this with evident regret, but I never have since. The fact is, I don't punish him, but I used to. I talked it over with Mr. Roe, and he convinced me that the good horses were not improved by punishment, but quite the contrary. They sort of feel the injustice of it in their hearts, and it vexes them, and they run less freely. 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## The Home Circle.

### OLD FARMER GRUDGE.

BY JOSEPHINE POLLARD.

Old Farmer Grudge was determined to trudge in the same old way that his father went. To toll and to slave, to plow and to save. Nor spend on pleasure a single cent. His tools were few, and so rusty, too. For want of the needful drop of oil, That creaky and slow they were forced to go, And added much to his daily toil.

His crops were scant, for he would not plant Enough to cover his narrow field; But grumbled and growled and always scowled.

At harvest over the meagre yield, And from pailty store on the threshing floor From gleaning now, and neglected bin, Would voices cry as he passed them by: "You can't take out what you don't put in!"

Old Farmer Grudge was a doubtful drudge, And in his dwelling and on his land 'Twas plain to be seen he was shrewd and keen.

And managed all with a miserly hand. There was little wood, there was little food, Oh, bare, indeed, was the pantry-shelf, Since he took no heed of another's need. So he was warned and well he himself.

The wife, it is true, would "skip and screw" Piece and patch, and some way plan, As woman will with amazing skill, Who is tied for life to a stingy man; But, oh! how she sighed for the thing denied, The books and comfort, and larger life, Of which she dreamed, and for which she schemed.

When consenting to be Farmer Grudge's wife, But Farmer Grudge not an inch would budge From the path his penurious father trod; But though very rich, would work in a ditch All day, and at dusk in a corner nod. And his girls and boys, bereft of the joys That others had, were disposed to roam, And to spend, prostrate, nor put to use The lessons they had been taught at home.

When Ellen, his pride, and his youngest child, Old Farmer Grudge was so much depressed, 'Twas really believed the old man grieved, And thus his fatherly love confessed. But as over the dead he shook his head, Economy still was in his thought, For he said, with a groan and a mournful moan, "Now all that good 'farnin' is gone for naught!"

Death took his wife—she was weary of life, Starred to death in a cruel way, For never a word of love she heard To sweeten her crust from day to day. From his home one morn the farmer was borne, And though little to comfort another he gave.

His neighbors more kind were not inclined To grudge him the space required for a grave.

**A TOUCH OF NATURE.**  
I tell ye, Josh, it does beat Cain and all, The way folks nowadays will cheat and lie To get along. There's that 'ere patent thing For hatchin' chickens—bought it, like a fool. Because they told me chickens would be high.

This spring, the agent said some New York chaps Were buyin' of 'em up to ship abroad. Well, darn me! if they wouldn't be too high To see, if we depended on such things.

I hope the good Lord will forgiv me, Josh, For all the in'ard cussin' that I've done, A-tryin' of that pesky fraud. Darn me! If I hadn't worked as faithful as a pair O' three-year-olds, and lost my rest, And sold 'em eggs, and wasted lie enough To do the family for three months or more, And, Josh, of all the critters ever brought Into a straw world, then chickens was the wus!

I knowed 'twas 'twixt right in nature's face, Straight from the start; but, kind o' graspin' like, A-thinkin' of them chickens shipped abroad, I parveered, and saw the wicked 'busness 'thru'.

O' all the knook kneed, cross-billed, spider-footed, bagally freaks o' nature, Josh, then birds Would take the premium anywhere. Poor things! I hadn't nerve to see 'em suffer—some of 'em Was blind as owls, and some stood on their legs.

And some bent settin' down as tho' they felt 'Accomtable, but didn't know just where. I stood it for a week, and when, one night, The patient warmer that they sell to raise the wood Got hot, and drove the chickens all out doors, I got hot too. For there they stood, poor things! All huddled up like sheep, a shiverin' and lookin' blue, as tho' they couldn't understand.

What was the matter with the fizin' thing They called their blessed mother, and I vowed 'T'd put an end on't, and I did.

By George! An old red hen is good enough for me, And good enough for anybody that's got sense; and, Joshua, last paste this in your hat: The man that's made improvement on the ways.

"O' nater"—patented—and tries to palm The thing on you, pays you no compliment, Gattakes you for the greenest god darned fool.

What ever tried to suck a chiny egg. That's me!

—C. R. D., in The Issue.

**Albion's Longings.**

I wonder if I'll be allowed admittance to the Circle after so long an absence? Oft and again have I intended to write the "Circulars," but circumstances have prevented. But now I am at last seeking admission among old friends.

I am far from my loved home in the Old Green Mountain State on the prairies of Kansas. Can you imagine how dear every hill, dale, mountain and valley is to me? This is a beautiful country, but it won't compare with my native land. To one who delights in beautiful scenery, I find the prairies present too much sameness. No hills, but a slight swell now and then the only diversity. In my native State, truly called the Switzerland of America, are beautiful hills and mountains, covered with the green forests while crystal streams and brooklets come purring down from the cool springs amid the forests of the mountain tops.

Our West is soon to be far ahead of the East in everything, as it is now in farming, yet I much prefer the East. Ever since I arrived I have travelled as much as possible and find when the resources of this great region are fully developed, the world would see the grandest country the sun ever shown upon.

All that is now needed is enterprise and capital, and the transformation is completed. I find no manufacturing west of the Mississippi. I am told immense

tracts are underlaid with coal and iron. Why not develop these? Eleven thousand dollars were spent in this town for agricultural machinery the past year. Every dollar of which went east of the Mississippi. How much better for the State if this money could have been kept in the State. It would be very easy to build steam manufactories all along your streams so as to build your own machinery. I am here on the plains well high friendly, and alone. I leave you to imagine how homelike the Home Circle seems.

Never before could I appreciate John Howard Payne's sweetest of songs, so dear to everyone who has a heart. I also think of one of our home songs, one verse of which I quote:

"I love my own, my native land, Though poor and rough she be, The home of many a noble son, The birthplace of the free! I'll love her rocks and rivers And all the quiet life she gives; Harsh for old New England And her cloud-capped granite hills!"

**Eunice Considered.**  
Having been a silent and appreciative listener in the Home Circle since the first meeting of its members, I think I am entitled, with our editor's consent, to attention while I make my first speech. Firstly, I want to protest against the frequent and often continued absence of so many of the best writers.

Looking over old *RURALS*, I find that very few of the most entertaining writers of a few years ago send us even greetings now.

Home Circle will come to be a misnomer, and this page will only be a meeting-place for chance acquaintances. Secondly, I want to tell Eunice that I consider poultry-keeping a more satisfactory occupation for women than raising small fruit, because she can perform so nearly all of the necessary labor herself. I am a farmer's daughter and have had experience in both kinds of work. I am quite small and have very poor health. Had to give up teaching because of physical inability to endure the labor, and yet for the past two seasons I have raised three hundred chickens without any assistance.

Each season I have lost only four or five young chickens after taking them off the nests, and have had only one sick in all the time. With judicious feeding my hens lay nearly all winter. If I were close to a good market and it were necessary for me to make my own support I certainly would not be afraid to attempt it by keeping and selling poultry. As to making a living by the production of small fruits I would not be so sanguine. A woman would be obliged to have help about preparing the ground for planting, because she can neither plow nor use the spade.

Only the strongest of women could wield the hoe with sufficient force to accomplish much good. Of course any of us could gather the ripened fruit, and that is most of the labor that many women could perform.

I will desist until others answer the call of Eunice, as my opinions may be biased, my knowledge of the former industry being founded on experience entirely, while my knowledge of the latter is gained mostly from observation.

**Sister, Most.**  
Lily has evidently not fully considered this matter of cultivating small fruits by our young women. The following is in illustration:

**EMPLOYMENT FOR GIRLS.**  
"Bill Arp," in the Atlanta Constitution, says: "I have heard good fathers ask the question, 'What shall we do with our girls?' Most don't mean rich fathers who have no anxiety about their daughters, but I allude to folks in the middle walks of life, whose daughters have had an education, and the father has nothing to give them. What is the poor girl to do when she quits school or comes home from college? It is right hard for her to descend from the beautiful heights of astronomy and the fields of history and botany and the chambers of music, down to the drudgery of housekeeping and sewing and darning and patching old clothes. But suppose she is a good, dutiful girl and is willing to do that and more, the question is what does it amount to, and can't she do better? Can't she hold of something that will excite her ambition and interest her and make her some money? Girls are just human, and they want to do something. Girls who do not marry, and whose fathers are poor, will need some money after awhile, when the roses begin to fade on their cheeks. Some are independent enough to go to millinery and dressmaking, but this gives employment to but a few. Some paint flowers and do fancy work and sell what they make, but not many have the gift of genius in that line and so the question still comes up, where can the clever country girls do to make a living for themselves and feel independent?"

Not long ago I was over in Eastern North Carolina, and I found the question answered in this place. I found some nice, well-educated girls cultivating small fruits and vegetables for market. They didn't plow the ground, but they planted and hoed and weeded and gathered the crop. I saw an acre of strawberries that year, and the plants got well set, a plow opens a furrow close by on each side, and this furrow is nearly filled with cotton seed, and then the earth is thrown back on the cotton seed; after that the vines are mulched with pine straw, and that is all. I never saw vines as small, or berries as numerous. I counted 24 on one plant. They laid on one another. This vine had been picked three times, and there were 24 left. They frequently picked a quart from three plants, and left many not ripe. They pick all 8 o'clock in the morning, and the girls average fifteen quarts by that time. They begin again at 4 o'clock in the afternoon, and get fifteen quarts more. When they hire pickers they pay two and a half cents a quart to girls, and two cents to boys, for the girls are more careful, and do not mash the berries nor spill them, and do not eat every big nice one they come across. But that is not all.

These girls have got a crop of raspberries just behind, and they will make \$200 or \$300 off of them, and they are growing currants and gooseberries, and talk about going into potatoes and beans and grapes and all that. Well, why not? Fruit-growing is a nice business for girls and so is raising vegetables. Those girls

have the advantage of ours, for the market is nearer, but I have never seen the time that nice strawberries couldn't be sold at home for twenty cents, and that will make lots of money. And then again, the exercise is so good for their health, and the occupation so cleanly and delicate and suits their nimble and delicate fingers so well. Woman was the first gardener we read about, that is to say, she was first to pick the fruit, and I have always thought she ought to have been forgiven, for her first thought when she found the fruit good was to give her husband some. But he, like an old rascal, went and laid all the blame on her, and tried to get out of the scrape.

Now, there is a chance for our girls to make some money. Let them try a small patch—say one-fourth of an acre. Plant out in August, and have a good crop of fruit next spring. It can be done. I heard a Nashville man say that two years ago there was no such business around Nashville as growing berries for Northern markets, but now there was 150 bushels shipped a day from one town, the town of Franklin, and they netted twenty cents a quart, or \$6 a bushel, and the girls took the money I wish the dear creatures were rich enough to live without work and only had to work when they felt like it; and I never see ladies of culture and refinement doing drudgery but what it shocks my humanity, and I want a society established for the prevention of cruelty to angels. But work is the common lot for man, and for woman, too, and I reckon they are happier for it.

**The Liggett-Colman Nuptials.**  
Mr. Hiram Shaw Liggett, eldest son of Mr. John E. Liggett, the tobacco manufacturer, was married to Miss Laura Colman, daughter of Col. Norman J. Colman, the editor of COLMAN'S RURAL WORLD. The wedding took place yesterday, Oct. 1st, at 3 p. m. at the beautiful suburban residence of the bride's uncle, Capt. C. D. Blossom, on Union avenue. The spacious double house, set in the midst of large and handsome grounds, with clumps of shrubbery and noble old oaks, the whole brightened and beautified by parterres of bright flowers. The ceremony was performed by the Rev. Dr. Snyder, in the presence of a limited number of friends. The long double parlors were gay with flowers of every description. At the upper end was a novel and tasteful decoration in the guise of an altar, made entirely of roses and other flowers, with beveled edges and steps leading to it. Before this the bride and groom knelt, on white satin cushions richly embroidered in gold. The bride wore a dress of dazzling white silk, the shining folds falling in a graceful cascade to the floor, and lined with costly point lace, and in the neck a little plaited vest of white silk, laced with three diamond buttons. The sleeves were trimmed in the same costly lace, and met by white gowns de sude. The bride wore a diamond pin and earrings, the gift of the groom, but no bridal veil. Her flowers were white nuptial roses.

After the ceremony the guests, about forty in number, were seated to partake of a handsome dinner, served by a la Russe. Among the waiters were Mrs. C. D. Blossom, Mr. and Mrs. John E. Liggett, Mr. and Mrs. O. D. Gray, Mr. and Mrs. Howard Blossom, Col. and Mrs. N. J. Colman, Mr. B. F. Gray, Mr. and Mrs. H. M. Blossom, Mr. and Mrs. Clarice Kilpatrick, Miss Clara Liggett, Mr. E. J. Liggett, Mr. C. D. Colman, Mr. Frank P. Colman and others. Among the elegant toilets worn on the occasion were the following:

Mrs. Capt. Blossom, heavy black satin, train, trimmed with guipure lace; high corsage, fastened by a superb crocodile of the pink pearls, set round with diamonds, and ear-rings set with the same exquisite stones.

Mrs. O. D. Gray, cream satin brocade, made dancing length, with shirred front, high hip, buttoned on the right, dropping low on the left; Modjeska corsage, trimmed with duchess lace over a plaited tulle vest, fastened by three diamond buttons.

Mrs. John E. Liggett, black velvet on train, with front of satin and lace; handsome diamonds.

Mrs. N. J. Colman, black satin shadames, made short, and trimmed very elegantly with guipure lace; diamond ornaments.

Mrs. B. F. Gray, black satin, with side-plaited front and full-gathered widths at the back; black corsage bonnet and natural flowers.—Globe-Democrat.

**Banking House Cellars.**

In a certain section of fine farming country farmers still bank their houses in winter with the same manner as in summer. "Nothing else keeps out the cold so well," are some of the answers returned when asked why they do so. And one sensitive farmer's wife, notwithstanding her earnest pleadings for the little baskets and the baskets into crates, and sent them North, and their sales averaged thirty cents a quart. Their total expenses for hire of help and cost of baskets and freight to market was \$200, and this left \$1000 for their work and waiting by and constant care. Well, those girls are proud and independent. Their father had five acres and he was making money—a good deal of money. I never saw a nicer business, nor one so simple and sure. The rows, three feet apart, when the plants get well set, a plow opens a furrow close by on each side, and this furrow is nearly filled with cotton seed, and then the earth is thrown back on the cotton seed; after that the vines are mulched with pine straw, and that is all. I never saw vines as small, or berries as numerous. I counted 24 on one plant. They laid on one another. This vine had been picked three times, and there were 24 left. They frequently picked a quart from three plants, and left many not ripe. They pick all 8 o'clock in the morning, and the girls average fifteen quarts by that time. They begin again at 4 o'clock in the afternoon, and get fifteen quarts more. When they hire pickers they pay two and a half cents a quart to girls, and two cents to boys, for the girls are more careful, and do not mash the berries nor spill them, and do not eat every big nice one they come across. But that is not all.

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**The Liggett-Colman Nuptials.**  
Mr. Hiram Shaw Liggett, eldest son of Mr. John E. Liggett, the tobacco manufacturer, was married to Miss Laura Colman, daughter of Col. Norman J. Colman, the editor of COLMAN'S RURAL WORLD. The wedding took place yesterday, Oct. 1st, at 3 p. m. at the beautiful suburban residence of the bride's uncle, Capt. C. D. Blossom, on Union avenue. The spacious double house, set in the midst of large and handsome grounds, with clumps of shrubbery and noble old oaks, the whole brightened and beautified by parterres of bright flowers. The ceremony was performed by the Rev. Dr. Snyder, in the presence of a limited number of friends. The long double parlors were gay with flowers of every description. At the upper end was a novel and tasteful decoration in the guise of an altar, made entirely of roses and other flowers, with beveled edges and steps leading to it. Before this the bride and groom knelt, on white satin cushions richly embroidered in gold. The bride wore a dress of dazzling white silk, the shining folds falling in a graceful cascade to the floor, and lined with costly point lace, and in the neck a little plaited vest of white silk, laced with three diamond buttons. The sleeves were trimmed in the same costly lace, and met by white gowns de sude. The bride wore a diamond pin and earrings, the gift of the groom, but no bridal veil. Her flowers were white nuptial roses.

After the ceremony the guests, about forty in number, were seated to partake of a handsome dinner, served by a la Russe. Among the waiters were Mrs. C. D. Blossom, Mr. and Mrs. John E. Liggett, Mr. and Mrs. O. D. Gray, Mr. and Mrs. Howard Blossom, Col. and Mrs. N. J. Colman, Mr. B. F. Gray, Mr. and Mrs. H. M. Blossom, Mr. and Mrs. Clarice Kilpatrick, Miss Clara Liggett, Mr. E. J. Liggett, Mr. C. D. Colman, Mr. Frank P. Colman and others. Among the elegant toilets worn on the occasion were the following:

Mrs. Capt. Blossom, heavy black satin, train, trimmed with guipure lace; high corsage, fastened by a superb crocodile of the pink pearls, set round with diamonds, and ear-rings set with the same exquisite stones.

Mrs. O. D. Gray, cream satin brocade, made dancing length, with shirred front, high hip, buttoned on the right, dropping low on the left; Modjeska corsage, trimmed with duchess lace over a plaited tulle vest, fastened by three diamond buttons.

Mrs. John E. Liggett, black velvet on train, with front of satin and lace; handsome diamonds.

Mrs. N. J. Colman, black satin shadames, made short, and trimmed very elegantly with guipure lace; diamond ornaments.

Mrs. B. F. Gray, black satin, with side-plaited front and full-gathered widths at the back; black corsage bonnet and natural flowers.—Globe-Democrat.

**Banking House Cellars.**

In a certain section of fine farming country farmers still bank their houses in winter with the same manner as in summer. "Nothing else keeps out the cold so well," are some of the answers returned when asked why they do so. And one sensitive farmer's wife, notwithstanding her earnest pleadings for the little baskets and the baskets into crates, and sent them North, and their sales averaged thirty cents a quart. Their total expenses for hire of help and cost of baskets and freight to market was \$200, and this left \$1000 for their work and waiting by and constant care. Well, those girls are proud and independent. Their father had five acres and he was making money—a good deal of money. I never saw a nicer business, nor one so simple and sure. The rows, three feet apart, when the plants get well set, a plow opens a furrow close by on each side, and this furrow is nearly filled with cotton seed, and then the earth is thrown back on the cotton seed; after that the vines are mulched with pine straw, and that is all. I never saw vines as small, or berries as numerous. I counted 24 on one plant. They laid on one another. This vine had been picked three times, and there were 24 left. They frequently picked a quart from three plants, and left many not ripe. They pick all 8 o'clock in the morning, and the girls average fifteen quarts by that time. They begin again at 4 o'clock in the afternoon, and get fifteen quarts more. When they hire pickers they pay two and a half cents a quart to girls, and two cents to boys, for the girls are more careful, and do not mash the berries nor spill them, and do not eat every big nice one they come across. But that is not all.

These girls have got a crop of raspberries just behind, and they will make \$200 or \$300 off of them, and they are growing currants and gooseberries, and talk about going into potatoes and beans and grapes and all that. Well, why not? Fruit-growing is a nice business for girls and so is raising vegetables. Those girls

have the advantage of ours, for the market is nearer, but I have never seen the time that nice strawberries couldn't be sold at home for twenty cents, and that will make lots of money. And then again, the exercise is so good for their health, and the occupation so cleanly and delicate and suits their nimble and delicate fingers so well. Woman was the first gardener we read about, that is to say, she was first to pick the fruit, and I have always thought she ought to have been forgiven, for her first thought when she found the fruit good was to give her husband some. But he, like an old rascal, went and laid all the blame on her, and tried to get out of the scrape.

Now, there is a chance for our girls to make some money. Let them try a small patch—say one-fourth of an acre. Plant out in August, and have a good crop of fruit next spring. It can be done. I heard a Nashville man say that two years ago there was no such business around Nashville as growing berries for Northern markets, but now there was 150 bushels shipped a day from one town, the town of Franklin, and they netted twenty cents a quart, or \$6 a bushel, and the girls took the money I wish the dear creatures were rich enough to live without work and only had to work when they felt like it; and I never see ladies of culture and refinement doing drudgery but what it shocks my humanity, and I want a society established for the prevention of cruelty to angels. But work is the common lot for man, and for woman, too, and I reckon they are happier for it.

**Notes for the Kitchen.**  
The following paragraphs are taken from an article in the New-York Evening Post:

Gingerbread may be varied and wonderfully improved by the addition of a cupful of grated coconut; this quantity is sufficient for a loaf of medium size. Almonds are also used in ginger cake, but unless you add flavoring of bitter almonds, there will not be a distinctive almond flavor.

A cook of some note says that if peaches are peeled and are put into cold water for half an hour, they will retain their color.

Graham flour is sometimes used with good effect to thicken the juice of stewed tomatoes, instead of using bread or crumbs.

The happy owner of a pear tree may, after canning and pickling, dry the pears. Inferior ones will answer for this, and a most excellent way to use dried pears in winter is to soak them in lukewarm water until they are soft, then simmer gently, and while yet warm put them through a colander, or better still, through a sieve which has a handle; the pulp thus made makes perfectly delicious pies. The pies may have one or two crusts. A lower crust, with little strips across the top, is preferred.

A hot salad, which is a well-known Pennsylvania dish, is made by slicing green tomatoes and small onions and a few potatoes, and frying them together; salt them well and send to the table smoking.

Cold boiled turkeys make a nice garnish for roast beef or lamb. Cut them in thin slices, and brown in butter, pouring hot gravy over them. Place them on the platter around the meat.

A delicate dish for dessert is made by paring six ripe, tart apples, cut them in halves, put half a pound of sugar into a saucepan, with half a pint of water, add the juice of one lemon, and let this boil until it is thick; then lay in the apples. When they have simmered until they are tender, take them out, drain them on a sieve, and let the sirup boil a few minutes. When the apples and sirup are both cool, put the apples carefully into a glass dish and pour the sirup over them.

A good way to arrange fruit in a dish for an ornamental piece, is to set a glass tumbler in the centre of the dish, around and over it put a thick layer of moss; then nearly so much fruit will be required, and it can be arranged very handsomely.

A teaspoonful of lemon peel chopped very fine and added to the gravy of fowls or game is considered a good addition.

A very appetizing way to cook onions is to boil them in salt and water until they begin to be tender; drain the water out, and wrap each onion in soft paper, set them side by side into a dripping pan, let them bake until done, then put into a vegetable dish and pour rich brown gravy over them; Spanish onions are especially nice cooked this way, as they have so delicate a flavor.

To make red-cabbage salad, choose a small red head; take off the outer leaves, and cut the rest into very thin slices; if you can shave it fine, it will be all the nicer; mix with it two teaspoonfuls of salt, three teaspoonfuls of salad oil, or of clarified butter, a little cayenne pepper, a little curry powder, if you like. This salad is nice for two or three days after it is prepared if it is kept where it is cool; if you prefer a sweet salad add sugar.

Tomatoes cut into thick slices and baked in a dripping-pan make a most agreeable garnish. Sprinkle pepper and salt over them, and broil in a hot oven; serve them with a little butter. Bake till tender, and serve hot on the platter with meat.

**MORAL INFLUENCE OF GOOD COOKING.**  
Savory dishes, serving to vary the monotony of the poor man's ordinary fare, made by a superior cook, are a moral as well as a physical advantage. An experience of my own will illustrate. When wandering alone through Norway, I lost the track in crossing the Kyolen fiord, struggled for twenty-three hours without food or rest, and arrived in a most exhausted condition. After a few hours' rest, I pushed on to a still wilder region, and continued thus to the great Jostedal table-land, an unbroken glacier of five hundred square miles; then descended the glacier, and reached the town of Lom, a very wild region. After a few hours' rest, I pushed on to a still wilder region, and continued thus to the great Jostedal table-land, an unbroken glacier of five hundred square miles; then descended the glacier, and reached the town of Lom, a very wild region. After a few hours' rest, I pushed on to a still wilder region, and continued thus to the great Jostedal table-land, an unbroken glacier of five hundred square miles; then descended the glacier, and reached the town of Lom, a very wild region.

**Receipts for Chow Chow.**

In response to a request from Seymour, Conn., we republish the two following receipts—the first from vol. 35, page 583, and the second from vol. 42, page 675—and shall be pleased to hear further from correspondents.

1. Chop half a bushel of green tomatoes, sprinkle fine salt over them, and let them stand 24 hours; then pour off all the water you can from them. Chop 3 large cabbages; break up 12 large cauliflower heads; wash in vinegar, 15 or 20 minutes, or until they are tender. Throw away the vinegar they are boiled in. Then add 8 chopped peppers, a handful of salt, about half a pound of white mustard seed, one handful of whole cloves, same of allspice, cinnamon and celery seed; mix well, taste, and if not flavored

enough add more. Pack in pots and cover with cold vinegar.

11. Take 100 small cucumbers, 50 large green bell peppers, half a peck of small string beans half a peck of small white onions, half a bushel of green tomatoes, and two large heads of cabbage. Remove all the seeds from the peppers, slice and salt all down over night; next morning wash in cold water, let them drain well, spread on a cloth, and mix through it one pound of mustard, 1 pound of white mustard seed, 4 ounces of celery seed, and one ounce of whole allspice. I like to have a few of the peppers red, as it looks better through the mass, and the onions, if very small I leave whole. After mixing well, put it in a kettle and cover with the best cider vinegar. After it begins to boil let it cook 15 minutes. If desired, add while boiling a bottle of salad oil; it helps keep it, but it can be left out.—Country Gentleman.

**"I Have Suffered!"**  
With every disease imaginable for the last three years. Our Druggist, T. J. Anderson, recommending "Hop Bitters" to me, I used two bottles.

An entirely cured, and heartily recommend Hop Bitters to every one. J. D. Walker Buckner, Mo.

I write this as a Token of the great appreciation I have of your Hop

"Hop Bitters." I was afflicted With inflammatory rheumatism!!! Enacted!!!

Seven years, and no medicine seemed to do me any good!!!

Until I tried two bottles of your Hop Bitters, and to my surprise I am as well to-day as ever I was. I hope "You may have abundant success" "In this great and" Valuable medicine; Anyone! \* \* wishing to know more about my cure?

Can learn by addressing me, E. M. Williams, 1100 16th street, Washington, D. C.

Remedy the best remedy in existence For Indigestion, Kidney—Complaint

"And nervous debility. I have just" Returned

"From the south in a fruitless search for health, and find that your Bitters are doing me more

Good! Than anything else; A month ago I was extremely Enfeebled!!!

And scarcely able to walk. Now I am Gaining strength! and

Fish

"And hardly a day passes but what I am complimented on my improved appearance, and it is all due to Hop Bitters!" J. Wickliffe Jackson, —Wilmington, Del.

"None genuine without a bunch of green Hops on the white label. Shun all the Vice, poisonous stuff with 'Hop' or 'Hops' in their name."

**IF YOU WANT**  
The most popular and satisfactory Corset as regards Health, Comfort and Elegance of Form, be sure and get Mrs. Fox's Improved Corset And Skirt Supporter. It is particularly adapted to the present style of dress, and is made by leading dealers. Price by mail \$1.50.

**FOY, HARMON & CO.,** New Haven, Conn.

**HOME**

**SANATIVE CORDIAL**

**PURIFIES THE BLOOD**

**ERADICATES MALARIAL POISON**

**REINVESTIGATES THE SYSTEM, PREVENTS AND CURES CHILLS, FEVERS, DYSPEPSIA, SCURVY, PLEURISY, LIVER DISORDERS, AND ALL AFFECTIONS OF THE BLOOD.**

**Promoted by a Medicine by United States Government.**

**For sale by all Druggists and Dealers generally.**



## S. S. Mann &amp; Son's Holsteins.

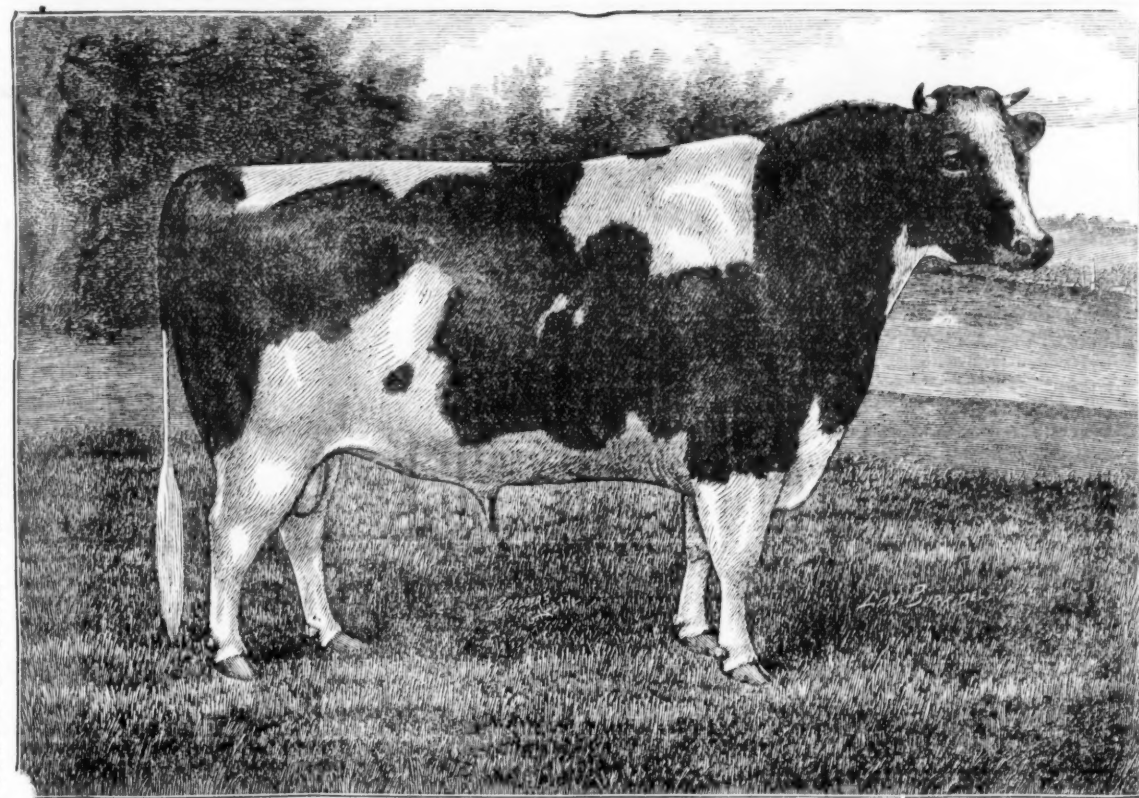
Here with we present an illustration of one of the bulls imported by S. S. Mann & Son, of Elgin, Illinois. This was the Sweepstakes bull at the Illinois State Fair and at the Wisconsin State Fair. He comes from one of the best milking strains in Holland, and is justly esteemed an all round cow maker and well bred animal.

In their circular the Messrs. Mann say:

Having been engaged in the dairy business (producing milk) for more than twenty years in the Elgin district, we have given our attention to that breed of cattle which we think the most profitable for the dairy farmer, and with that end in view, having carefully studied the character, general disposition, adaptability to climate and production of the various breeds, came to the deliberate conclusion that the Holstein was pre-eminent the breed for our American dairymen. Having convinced ourselves of this fact, we determined to pursue our investigations still further, and during the year 1883 personally visited Holland, where we remained over three months, inspecting the numerous herds to be found in that country. Our convictions soon became firmly settled, and we purchased one hundred and sixty head of the choicest animals of both sexes that could be obtained. This constituted our first importation, and as our cattle were favorably received by the public, but a short time elapsed until we were compelled to make a further importation, and have just now received seventy head, with a still larger importation to arrive the present month—making our herd the largest to be found west of New York, consisting of about 400 head.

Our cattle have been selected in Holland, with the utmost care, and with special reference to their milking qualities and individual merits. Among them will be found the largest milk-producing families known in Holland or America.

These cattle are being sought after by progressive dairymen in every State in the Union.



HOLSTEIN BULL LORD BENNINGBROOK, PROPERTY OF S. S. MANN & SON, ELGIN, ILL.

## The Dairy.

## Officers Mississippi Valley Dairy and Creamery Association.

President—Norman J. Conman, St. Louis.  
Vice President—J. W. Drury, Waterloo, Ill.  
Second Vice President—Joseph E. Miller, Belleville, Ill.

Treasurer—Wm. N. Tivy, 224 North Second St. St. Louis.  
Secretary—Joseph W. Sheppard, 609 Olive Street St. Louis.

## A Dairy Exchange.

We have made mention of the fact more than once, that with the growing dairy industry of this state and adjacent territory, it would become necessary at no distant day to establish at some point in Missouri a dairy exchange, where every producer may find a buyer and every buyer goods suitable to his trade at public auction. It is with a view to familiarize our readers with the methods and general business of such an institution that we publish the following report of the opening dairy day at the Chicago Produce Exchange from the Tribune.

The first "Dairy Day" of the Produce Exchange of the city of Chicago was held yesterday at its rooms, corner of Lake and Clark streets. There was a very large attendance of members and dairymen of the Northwest. The complete success of this attempt will make the "Dairy Day" hereafter a permanent feature of the exchange. The heat of the weather would not permit the exhibition of samples. The rooms were opened at 10 o'clock, and the first business was social chat and the forming of new acquaintances. At 2 o'clock the exchange called to order and the opening exercises began.

Col. Watts, President of the exchange, said the hour had arrived for the inauguration of their regular "Dairy Day," and he welcomed them with the hope that this initial movement might be the beginning of a new era in the produce trade of this city. The growth of the dairy interests of the city had been marvelous. During the last decade the entire interest has been revolutionized, and its progress continuous, still finding conditions to improve. The trade had its old channels, and new methods must be devised to meet the new conditions. As a sequence to these facts they had inaugurated their "Dairy Day." If they did not take hold and mature this project others were ready to do so. Therefore, they would simply say, "but not without the usual dairy opposition. They hoped to succeed in overcoming this. They did not mean to trench upon the rights, privileges, or immunities of any man or set of men; on the contrary, they would simplify the work of the trade, facilitate the intercourse of buyer and seller, and take a long step in the line of progress by bringing the producer and consumer together. They had selected and set apart Wednesday of each week for a call for the sale of dairy products to this end, under purely nominal restrictions, they had invited all manufacturers and dealers to meet with them and witness for themselves the workings of the exchange. They intended that every transaction, sale, inspection, price and terms, should be a matter of record. Every deal should be open and above board, and subject to the scrutiny of any one interested, so that whether present or absent, the owner of goods sold might rely upon having a perpetual record of the sales, to be consulted at his own convenience. This would be a new departure in the produce trade, and would increase confidence. Exchanges somewhat similar had been established at several of the dairy centers. They had been successful in organizing for the benefit of the neighborhood, and if this was true, what might Chicago expect?

Other remarks were made by Phil Alexander, Col. Robert M. Littler, and the Secretary.

Charley Andrews, the caller—and he is a good one—seized the hammer and sales are quite unintelligible to an outsider without explanation and the closest attention. The following are some of the principal sales: Fifty tubs creamery butter, extra, Aug. 1, 24 3-4; 50 tubs creamery, 24 3-4; 50 tubs creamery, 22 3-4; 100 tubs choice creamery, last of August, made, 23c; 57 tubs choice creamery, 23c; 400 boxes cheddar cheese, 9 1-8; 500 boxes choice cheddar cheese, 9 1-4; 100 boxes choice, 8 1-4; 1,000 boxes cheddar, choice Wisconsin, 9 3-4; 250 boxes Young America cheese, last of August made 11 3-4; 100 cases Young America 11 1-2; 100 cases first eggs, seller September, 16 1-2c.

The rooms will be open for business every day at 2 o'clock. Every Wednesday hereafter will be "Dairy Day."

## Holstein Transfers.

## BULLS.

Lord Englewood 473, J. E. Miller, J. L. Taylor, St. Louis, Mo.

Brick Pomeroy 474, S. Alken, R. M. Fonda, Lonna, Ia.

Duke of Orchard Hill, 475, L. W. Allen, W. G. Schweigler, La Fayette, Ind.

Albans 476, W. A. Pratt, J. Lasche, Sioux Falls, Dak.

Sir Joseph 477, G. J. Brown & Co., H. Brown, Liberty, Ill.

Art 478, G. W. Gue, W. T. Gordon, Burlington Junction, Mo.

Hancock 479, J. M. Severy & Co., M. & R. Parks, Victor, Ill.

Gabe 480, R. L. Thomas, W. A. Pratt, Elgin, Ill.

Cyclone 481, W. A. Pratt, Mills Bros., Ann Arbor, Mich.

Art 482, G. W. Gue, W. T. Gordon, Burlington Junction, Mo.

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ter will form in the cream. If the temperature is below 54°, the cream will not be of sufficiently even nature, as half-soured cream will yield little, bad and non-preserving quality of butter. At eight o'clock, the cream will be of uniform character, and it should then be well stirred; and when, after a few hours, it has attained a temperature of 52°, it must be again well stirred, so that it may be certain the souring is universal throughout.

When the cream is allowed to lie quietly overnight, it will be found on the following morning to have a temperature of 49°. In the summer season it is too warm, it is cooled in ice water of a temperature of 47°, as a too rapid cooling has always an injurious effect upon the cream.

If in winter it is too cold, it is then warmed up to churning temperature of 53° by sinking the cream pail into warm water. When churning temperature is reached, one-half pint of coloring is added to every 100 pounds of cream, and it is then poured into the churn.

It is of great importance that the churn should be of dimensions proportionate to the quantity of cream which has to be churned. With a churn which makes 200 revolutions in the minute, when all else is in order, butter will be made in thirty minutes' churning.

When the buttermilk begins to make its appearance, it is washed off with water of a temperature of 47°.

It will be best to make use of a small can for the washing, rather than one of a larger measure, as it will be easier with this can to get the water into all the crevices and still avoid the pouring of too much water in the butter.

After this it is churned for a short time quite slowly, until the butter grains are as large as a big pin head. Then the churn is stopped and is lifted on a pedestal and the buttermilk is allowed to run off through two holes in the bottom of the churn. That the churn should be arranged in such manner that the buttermilk can be tapped off is a precaution upon which great stress is laid, because one thereby avoids washing the butter grains, a thing one cannot avoid doing when the butter is taken out of the churn with a sieve.

When the buttermilk is run off, half a pail of water of a temperature of from 49° to 50° is poured over a churning of ten pounds of butter. It is poured over the butter at repeated intervals whilst the churn is kept running. The water is then run off and the butter again washed over with the same quantity of water as before. The butter is then taken out of the churn and laid upon the butter trough, where it is weighed, and kneaded three to four times with a spoon. Thereafter three per cent. of salt is mixed with it, when it is again kneaded three to four times, so that the salt may be well mixed in.

After the lapse of twenty minutes it is again kneaded, and is then allowed to stand about one hour before it is taken upon the kneading board in pieces of from four to five pounds, when it receives its final kneading. After the last kneading the butter is immediately laid down in the cans, where it must be packed as closely as possible, so that no air can come to it, otherwise it will lose much in its keeping properties.

How Many Acres for the Support of a Cow.

In reply to the query how much land is required for the support of a cow? The Farmer's Union says: "This question depends for an answer so much on the circumstances of the soil as not to admit of a very definite answer. Mr. Schell, of Little Falls, N. Y., estimates that the land in pasture and hay requisite for the support of a cow is three acres; and this is the estimate of Mr. Carrington for modern good dairy farms in England. In Belgium 10 acres of land supports two cows—one heifer, and one yearling calf; but when the calves are sold off young and cows in full milk only are kept, the proportion is two cows to seven and one-half acres. Columns of evidence are required per cow for summer and winter keep; while the late Professor X. A. Willard thought that in Herkimer county, N. Y., one and one-half or two acres of pasture per cow would answer, and in some exceptional cases one acre. Dr. Telf, president of the Illinois Dairymen's Association, recently informed the writer that in Illinois he considered from two and one-half to three acres about what would be required. The doctor is a practical farmer, and is the owner of a very fine dairy, but his statement seems a little wild when we refer to the fact that Mr. Lord, an Elgin dairymen, keeps 100 cows on 300 acres, besides the horses necessary for the farm work, while the Outman Bros., near Elgin, keep 84 cows

and the requisite number of horses to do the farm work on 200 acres. They, however, use ensilage largely in the place of hay."

## Milk in Hot Weather.

Mr. Roberts, the Hartford sealer, gives an explanation of the taint of milk which is often noticed after being taken from the ice. "Most people put the milk on top of the ice. The cold current descends and comes up on the other side, after being more or less heated. It is an impurity of the body does not get to be discouraged, to the end that uniformity of color may be attained by breeders. White upon one ear, or a bronze or copper spot on some part of the body, argues no impurity, but rather the reverse—original colors. Markings of white other than those named above are suspicious, and a pig so marked should be rejected. Face, short, fine and well shaped, broad between the eyes. Ears, generally almost erect, but sometimes inclining forward with advancing age; small, thin, soft and showing veins. Jaw full, neck short and thick. Shoulder, short from neck to middling deep from back down. Back, broad and straight, or a very little arch. Ribs, long and well sprung, giving room and plenty of body; short ribs of good length giving breadth and levelness of loin. Hips, good length from point of hips to rump. Hams, thick and round and deep, holding their thickness well back and down to the hocks. Tail, fine and small, set on high up. Legs short and fine, but straight and very strong, with hoofs erect, legs set wide apart. Size, medium. Length, medium; extremes are to be avoided. Color, fine and soft; no bristles. Skin, pliable.

Standard of excellence of Berkshire Swine, adopted by the American Berkshire Association, page 5, volume 5.

Color—Black, with white on face, tip of tail and an occasional splash on arm.

Face and Snout—Short, the former fine and well shaped, and broad between the eyes.

Eye—Very clear, rather large, dark blue, or gray.

Ear—Generally almost erect, but sometimes inclined forward with advancing age, medium size, thin and soft.

Jowl—Full and heavy, running well back on neck.

Neck—Short and broad on top.

Hair—Fine and soft, medium thickness.

Shoulder—Thick and even, broad on top, and deep through chest.

Back—Broad, short and straight, ribs well sprung, coupling close to hips.

Saddle—Deep and well let down, straight on bottom line.

Flank—Well back and low down on leg, making nearly a straight line with lower part of side.

Loin—Full and wide.

Ham—Deep and thick, extending well upon back, and holding thickness well down to hock.

Tail—Well set up on back, tapering and not coarse.

Legs—Short, straight and strong, set wide apart, with hoofs erect, and capable of holding good weight.

Symmetry—Well proportioned throughout, depending largely on condition.

Condition—In good healthy growing state not over-fed.

Style—Attractive, spirited, indicative of thorough breeding and constitutional vigor.—Swine Breeders' Journal.

Hog Cholera.

—As we predicted two or three weeks since, hog cholera, so called, has made its appearance in quite a number of places. We have not heard of any cases in this country, but it is in adjoining countries and other States, and a number of cholera hogs are reported as going into Chicago. It is, therefore, a time for increasing vigilance on the farm.

1. A rigid quarantine should be established against other hogs. The pigs raised on a farm should never go off it except to market, and no other hogs should be allowed under pretense of breeding, weighing, or any other, to come on the farm.

2. A most rigid quarantine should be maintained against owners of infected herds or visitors or employees on such premises. This is a most frequent source of contagion. A farmer's hog shows unusual symptoms, and he goes around to see if his neighbors have the same, and carries the infection on his boots. The dealer in dead hogs should be treated to a dose of the bull-dog if he puts his nose inside the gate.

3. The greatest care should be used in the matter of feed. The hog loves variety, and a constant feeding on one kind of food tends to derange digestion and invite disease. The only wonder to us is, taking into consideration the way hogs are fed, that one-half of them do not die with disease.

4. With all these precautions the disease may strike you. It may be carried by dogs, wolves or buzzards; by the running water or by the casual visitor.

## The Pig Pen.

## Transfers of Thoroughbred Stock.

## AMERICAN BERKSHIRE RECORD.

Prospect Lad IV, 12,223, Springer Bros., Springfield, Ill., to R. W. Dennis, Archer, Wis.

Saltie E's Sambo 3633, Hillmeyer's Perfection 7690, Princess Spotted 10,244 and Spotted's Prince, 11,245, Geo. W. Penney, Hawark, Ohio, to Chas. S. Dole, Crystal Lake, Ill.

Prince Donna III, 12,292, Geo. W. Penney to Jas. A. Jones, Oliveria, Texas.

Spotted Gloster II, 12,273, Geo. W. Penney to C. H. Henry, Macedonia, Ill.

Gloster's Spotted 12,293, Geo. W. Penney to W. W. Alder, Farmer City, Ill.

Nancy 12,246, Geo. W. Penney to Ab-salom Geiger, St. James, Ind.

Roselle 8058, Churchman & Jackson, Beech Grove, Ind., to W. P. Johnson, Hampton Station, Tenn.

Lucasia 12,280, Parthenon 12,282 and Handicap 12,282, W. T. T. Hill, Belmont, Ky., to H. D. Nichols, Nashville, Tenn.

PHIL M. SPRINGER, Sec'y.

Springfield, Ill.

## Scale of Points and General Standards of Excellence.

—We present herewith, the different scale of points, and general standards of excellence, as adopted at the National Swine Breeders' Convention in 1872, and by the different record associations throughout the country, also the special features governing the judging of small, medium and large breeds. A close study of the different standards will give an idea of what is required of our judges and exhibitors.

Division of points and a numerical scale as adopted by the National Convention of Swine Breeders, 1872.

Back, 10  
Long Ribs, 10  
Short Ribs, 10  
Shoulder, 10  
Ham, 10  
Length of Body, 10  
Flank, 10  
Tail, 10  
Jowl, 10  
Face, 10  
Total, 100

## REMARKS.

Adopted at National Swine Breeders' Convention in 1872.

Color, black, with white on feet, face, tip of tail and occasional splash of white on the arm. While a small spot of white on some other part of the body does not argue an impurity of the body, yet it is to be discouraged, to the end that uniformity of color may be attained by breeders. White upon one ear, or a bronze or copper spot on some part of the body, argues no impurity, but rather the reverse—original colors. Markings of white other than those named above are suspicious, and a pig so marked should be rejected. Face, short, fine and well shaped, broad between the eyes. Ears, generally almost erect, but sometimes inclining forward with advancing age; small, thin, soft and showing veins. Jaw full, neck short and thick. Shoulder, short from neck to middling deep from back down. Back, broad and straight, or a very little arch. Ribs, long and well sprung, giving room and plenty of body; short ribs of good length giving breadth and levelness of loin. Hips, good length from point of hips to rump. Hams, thick and round and deep, holding their thickness well back and down to the hocks. Tail, fine and small, set on high up. Legs short and fine, but straight and very strong, with hoofs erect, legs set wide apart. Size, medium. Length, medium; extremes are to be avoided. Color, fine and soft; no bristles. Skin, pliable.

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## Amusements.

The local theatrical season has well opened, and though its initiatory stages do not speak brilliant financial results, still the outlook is much more encouraging than the drawbacks of presidential year, generally depressed state of business and excessively hot weather would warrant. The theatres are now in full blast, and their bonanza has been the week just upon us—Fair week.

The attractions have been notably successful in drawing powers, and it has been a leading question with managers as to the capacity of their respective theatres to greet the rush of the multitudes.

Standing room only, has been the unvarying announcement, which greeted late comers, but there is no sign of the times to the managerial heart, more satisfactory and encouraging substantial than this same sign "standing room only."

At the Olympic, "A Bunch of Keys" has unlocked the hearts of the people, and they have crowded the doors to overflowing. The piece is a bright burlesque on hotel life, and is full of brilliant bits on popular hobbies of the times. Grimes and Snaggs, Esq., the principal characters have set the town laughing. Mr. and Mrs. W. F. Florence open Oct. 13th.

At the Grand, "My Partner," with Louis Aldrich as the star drew enormously upon his opening. "My Partner" is a legitimate American play, from the pen of the famous playwright, Bartley Campbell. "The Silver King" follows Oct. 12th.

At Pope's, "The Devil's Auction," a grand spectacular play, has been doing business to packed houses. It is a triumph of scenic gorgeousness, and combines many features of a pantomime and "specialty" nature. Excelsior is the next attraction, and will open Oct. 12th.

At the People's, Gus Williams as Capt. John Misher, is doing excellently. The place is a strong medium for the specialties of Gus Williams, who is a very clever comedian and an excellent singer. W. J. Scanlan, the Irish minstrel, comes Oct. 12.

At the Standard, George H. Adams as "Humpty Dumpty" is delighting very large audiences, and his original methods in pantomime are a pleasing innovation on that of the old times.

At the Casino, the best variety show ever given in St. Louis, is on the boards, and Manager George McManis is in consequence coming money. The Casino—called the St. Louis Bijou, for reason of its cozy, attractive appearance as a pretty little gem, and it has made the most popular hit of any variety theatre ever known. Besides a nightly performance, matinees are held Tuesday, Thursday and Sunday.

Gregory's and Broadway and Treysler's fine museums are doing a big business.

## The Stock Yards.

Weekly Review of the Live Stock Market.

The receipts and shipments for the week ending Tuesday, Oct. 7, were as follows:

	Cattle.	Hogs.	Sheep.	Horses and mules.
Wednesday.....	2081	3770	2044	119
Thursday.....	1875	4175	1163	114
Friday.....	770	1770	1750	116
Saturday.....	418	661	631	123
Sunday.....	177	168	135	135
Tuesday.....	508	1885	1772	293
Total.....	7236	14135	8416	860
Last week.....	3,982	70,123	5,393	566

SHIPMENTS.

	Cattle.	Hogs.	Sheep.	Horses and mules.
Wednesday.....	1433	2988	700	156
Thursday.....	1920	2118	1370	153
Friday.....	1745	1971	1312	151
Saturday.....	577	301	1209	212
Sunday.....	413	505	—	7
Total.....	6,685	10,746	5,691	621
Last week.....	8,019	16,574	5,085	821

The Washington Cattle Company, chartered lately at Galveston, Tex., makes the fifth organization of the kind in that city.

In the fifty-eight provinces of Europe and Prussia there are 19,574,723 horses, of which number nearly 6,000,000 are in the military circle of Kazan. Complaint is made that too many horses are exported from the country. The number in 1879 amounted to 19,000 in 1880 it was 24,000. In 1882 35,280, and last year the number is believed to have reached 45,000.

Frances Whitaker & Son's packing establishment commenced killing Monday.

The present prices of cattle, although lower than for several weeks, are yet higher than those prevailing a year ago.

An exchange says: When a man has a sheep killed by a dog in Indiana, he must report the loss to the Township Trustees within ten days, and any one making a false statement of the amount of damage done may be fined \$100 and imprisoned for ten days. An assessor who fails to list any dog, is liable to a fine of \$3 for each case, and any one making a false statement of the number of dogs he keeps, may be fined \$50. A dog caught killing sheep may be killed without ceremony.

The Limerick, Ireland, pork butchers to the number of 1000 employed by one firm have gone on a strike, and for a very trivial cause the men took French leave and went to the States. They were all allowed to return to work with one exception, that of a man who assaulted another, and because he would not be taken back all the men struck work. The other large bacon houses, having agreed to dismiss their men when a strike should occur at any one establishment, will, it is said, disemploy about 1,500 men more, so that between 2000 and 3000 will be thrown out of employment by this curious strike.

The Admiralty Office has already paid £16,000 on the Armour & Co's contract with England to supply the army in Egypt with one million pounds of corned beef and a thousand cases of bacon. This is claimed to be the largest individual contract for provisions ever awarded by the British Government and the rations from this supply are calculated to be sufficient for the meat eating soldiers in Egypt for six or seven months. This a million pounds of corned beef was delivered to the Government officials at Woolwich Castle within an hour after the award, and the other half million pounds were loaded aboard the cars at Chicago the same day and started as a special freight train for New York, bringing the right of way over passenger trains, in order that the goods should arrive in time for the outgoing steamer.

CATTLE—The market in all its branches has been generally unsatisfactory, and trade was characterized by great slowness of movement, business at no time during the week exhibiting any marked activity. With an increased number of poor cattle in the market, buyers were obliged to accept much lower prices, and the bulk of sales showing a decline of 35¢ to 45¢. The reduction in prices was most marked on fat to medium grades of both native and range cattle, and especially the former, as such came into competition with the latter, and consequently suffered the most. Shows of a really good quality and choice descriptions have not suffered so severely, the fully covering the reduction. This

was because of the exceedingly limited number on the market and the continued demand on Eastern account, which was at no time satisfied just what quotations to give for really choice heavy and export steers it is impossible to determine, the best offered during the week only weighing 1345 lbs., and brought \$6 40 at a time when the market was weak; it is most likely that a fine bunch of export steers would bring considerably more. Other sales were at \$4 50 to \$5 50 in the extreme range for fat really good of a thousand to 1285 lbs. average. Buyers for the local and interior trade supplied their wants from the best grades of range cattle to the utter neglect of the common grades of natives. There was also no demand for stockers and feeders, salesmen however looking for an improvement in this respect later in the season. Range cattle comprised the larger part of the receipts, and for all grades above common there was a fair demand, the arrivals however were not of a character to influence the trade for the better, really good steers being scarce, and what few offered at \$3 80 to \$3 90, none being offered that would fetch 4¢. Light weights sold readily at \$3 40 to \$3 50, and mixed lots at \$3 20 to \$3 30, while cows brought \$2 00 to \$2 25, and several hundred head of half bred cows \$2 25 to \$3 00.

HOGS—The market the past week has shown more steadiness and the movement has been the dull and lightest of the season. The receipts were not unusually large, on the contrary they were not above the average, but there was a very heavy run of light and medium weights at Pittsburgh, Buffalo and Cincinnati, and the large break in prices at these points has affected the shipping orders here entirely, and the demand for light hogs for the time being was at a standstill. This state of affairs continued up to near the close, the market depending entirely upon city packers and butchers, speculators having little confidence in the market. Prices under the strong pressure to sell and the lack of demand broke badly and by Friday they were 50¢ lower, making a drop of about \$1 in two weeks in packing grades alone. This class were not very large buyers notwithstanding the low prices prevailing and butchers only just sufficient for immediate needs. The quality was fair, but the proportion of choice heavy hogs small. Friday a change was had for the better, large Eastern orders were received, and with an urgent demand salesmen were enabled to obtain an advance of 15¢ strong. Yorkers selling freely and in large numbers at \$4 00 to \$4 25. Packers also took hold, the establishment of Whitaker & Sons starting up and sales were made in mixed to good packing at \$4 00 to \$4 25, butchers paying from \$3 10 to \$3 25, choice saleable at \$5 50.

Monday and Tuesday the two last days of the review week ever characterized by strength and activity. The demand from both shippers and local buyers was more or less urgent and sales were made quickly and at strong rates. Offerings, however, were small and the movement was restricted. At the close values were quoted as follows: Yorkers \$5 45 to \$5 50, with \$5 10 to \$5 15 for these of a butchery description, butchers to choice \$5 50 to \$5 60, pigs and culls \$4 50 to \$4 65. SKEEP—The market was in a very unsatisfactory condition during the early part of the week, and the prices current weak. Towards the close a strong and active eastern demand sprung up for fat muttons, and the market was quoted fairly strong. The demand to medium grades remained unchanged, and common were not wanted at any price. We quote good to choice \$3 50 to \$3 75, fair to medium \$3 25 to \$3 50, common \$3 00 to \$3 25. The Breeders Gazette gives the following estimate of the number of sheep in the world. There are large numbers of sheep in Asia and some in the North African countries, as well as upon certain islands, of which no estimate has been attempted, so far as can be ascertained. The returns that are available from others are necessarily defective. From the latest accessible data these are as follows:

Australia.....	90,000,000
South America.....	30,000,000
United States.....	53,000,000
Russia.....	45,000,000
Germany.....	30,000,000
United Kingdom.....	27,000,000
France.....	24,000,000
Austria.....	20,000,000
Spain.....	18,000,000
South Africa.....	11,000,000
Italy.....	10,000,000
Canada.....	4,000,000
Norway and Sweden.....	4,000,000
Portugal and Greece.....	4,000,000
Total.....	415,000,000

GENERAL MARKET.

FLOUR—Trade throughout the week has been moderately active and generally steady. Prices were well sustained, the few changes that took place in rates being for the better. Business was mostly on local and order account, although there was some sales in sacks for export, not many. At the near close there was some weakness displayed, but the market closed unchanged at the following: No. 2 90¢ to 92¢, No. 3 85¢ to 87¢, family 3 70¢ to 42¢, choice 3 25¢ to 35¢, fancy 3 75¢ to 43¢, extra do 3 90¢ to 45¢, patents 4 10¢ to 4 90¢.

WHEAT—Received into elevators during week 362,447 bu. Withdrawn 266,490 bu. After a week of ups and downs the market for futures closed fully 1/2¢ lower. Receipts at all points were large and the advance generally of an unfavorable nature. However there was much pressure to sell and the movement was slow all through the season. October sold at 77¢, and 1/2¢ down the market for the week. November brought 81¢ down to 81¢, December 81¢, May sold at 80¢ to 81¢. Cash was slow of sale at the decline, and sales light at 73¢ to 74¢, No. 2 red, 69¢ to 70¢, No. 3 do, 62¢ to 64¢, No. 4 winter, 54¢ to 55¢, No. 2 red, 62¢ to 64¢, No. 3 do, 54¢ to 55¢, No. 4 winter, 54¢ to 55¢, No. 2 red, 62¢ to 64¢, No. 3 do, 54¢ to 55¢, No. 4 winter, 54¢ to 55¢.

CORN—Received into elevators during week 77,515 bushels; withdrawn 30,970 bushels. Like wheat, this market fluctuated considerably, though trading was generally active and a large business was done, the closing day prices fluctuated within a large range, and the demand was good, and large sales were made at the advance which marked the close. November went up 1/2¢, selling at 44¢, but broke and closed at 42¢ to 43¢; later months were weak and unsettled, with more sellers than buyers. Year settling at 37¢ down to 37¢, Jan. 35¢ to 36¢, but only worth 35¢ at the close. May ranged from 82¢ to 87¢, October was bid 92¢, cash No. 2 mixed was dull and unchanged selling to speculators at 82¢ to 84¢, rejected do at 51¢, rejected 47¢ to 48¢, and no grade at 45¢.

OATS—Received into elevators during week 9,024 bu. Withdrawn 6,265 bu. Many options closed active with sales of over 500,000 bu. of oats, and the market for the month the only trading was in year at 26 1/2¢, Oct. was bid 26 1/2¢, Nov. 26 1/2¢, Dec. 27 1/2¢, Jan. 28 1/2¢, Feb. 29 1/2¢, Mar. 30 1/2¢, Apr. 31 1/2¢, May 32 1/2¢, Jun. 33 1/2¢, Jul. 34 1/2¢, Aug. 35 1/2¢, Sep. 36 1/2¢, Oct. 37 1/2¢, Nov. 38 1/2¢, Dec. 39 1/2¢, Jan. 40 1/2¢, Feb. 41 1/2¢, Mar. 42 1/2¢, Apr. 43 1/2¢, May 44 1/2¢, Jun. 45 1/2¢, Jul. 46 1/2¢, Aug. 47 1/2¢, Sep. 48 1/2¢, Oct. 49 1/2¢, Nov. 50 1/2¢, Dec. 51 1/2¢, Jan. 52 1/2¢, Feb. 53 1/2¢, Mar. 54 1/2¢, Apr. 55 1/2¢, May 56 1/2¢, Jun. 57 1/2¢, Jul. 58 1/2¢, Aug. 59 1/2¢, Sep. 60 1/2¢, Oct. 61 1/2¢, Nov. 62 1/2¢, Dec. 63 1/2¢, Jan. 64 1/2¢, Feb. 65 1/2¢, Mar. 66 1/2¢, Apr. 67 1/2¢, May 68 1/2¢, Jun. 69 1/2¢, Jul. 70 1/2¢, Aug. 71 1/2¢, Sep. 72 1/2¢, Oct. 73 1/2¢, Nov. 74 1/2¢, Dec. 75 1/2¢, Jan. 76 1/2¢, Feb. 77 1/2¢, Mar. 78 1/2¢, Apr. 79 1/2¢, May 80 1/2¢, Jun. 81 1/2¢, Jul. 82 1/2¢, Aug. 83 1/2¢, Sep. 84 1/2¢, Oct. 85 1/2¢, Nov. 86 1/2¢, Dec. 87 1/2¢, Jan. 88 1/2¢, Feb. 89 1/2¢, Mar. 90 1/2¢, Apr. 91 1/2¢, May 92 1/2¢, Jun. 93 1/2¢, Jul. 94 1/2¢, Aug. 95 1/2¢, Sep. 96 1/2¢, Oct. 97 1/2¢, Nov. 98 1/2¢, Dec. 99 1/2¢, Jan. 100 1/2¢, Feb. 101 1/2¢, Mar. 102 1/2¢, Apr. 103 1/2¢, May 104 1/2¢, Jun. 105 1/2¢, Jul. 106 1/2¢, Aug. 107 1/2¢, Sep. 108 1/2¢, Oct. 109 1/2¢, Nov. 110 1/2¢, Dec. 111 1/2¢, Jan. 112 1/2¢, Feb. 113 1/2¢, Mar. 114 1/2¢, Apr. 115 1/2¢, May 116 1/2¢, Jun. 117 1/2¢, Jul. 118 1/2¢, Aug. 119 1/2¢, Sep. 120 1/2¢, Oct. 121 1/2¢, Nov. 122 1/2¢, Dec. 123 1/2¢, Jan. 124 1/2¢, Feb. 125 1/2¢, Mar. 126 1/2¢, Apr. 127 1/2¢, May 128 1/2¢, Jun. 129 1/2¢, Jul. 130 1/2¢, Aug. 131 1/2¢, Sep. 132 1/2¢, Oct. 133 1/2¢, Nov. 134 1/2¢, Dec. 135 1/2¢, Jan. 136 1/2¢, Feb. 137 1/2¢, Mar. 138 1/2¢, Apr. 139 1/2¢, May 140 1/2¢, Jun. 141 1/2¢, Jul. 142 1/2¢, Aug. 143 1/2¢, Sep. 144 1/2¢, Oct. 145 1/2¢, Nov. 146 1/2¢, Dec. 147 1/2¢, Jan. 148 1/2¢, Feb. 149 1/2¢, Mar. 150 1/2¢, Apr. 151 1/2¢, May 152 1/2¢, Jun. 153 1/2¢, Jul. 154 1/2¢, Aug. 155 1/2¢, Sep. 156 1/2¢, Oct. 157 1/2¢, Nov. 158 1/2¢, Dec. 159 1/2¢, Jan. 160 1/2¢, Feb. 161 1/2¢, Mar. 162 1/2¢, Apr. 163 1/2¢, May 164 1/2¢, Jun. 165 1/2¢, Jul. 166 1/2¢, Aug. 167 1/2¢, Sep. 168 1/2¢, Oct. 169 1/2¢, Nov. 170 1/2¢, Dec. 171 1/2¢, Jan. 172 1/2¢, Feb. 173 1/2¢, Mar. 174 1/2¢, Apr. 175 1/2¢, May 176 1/2¢, Jun. 177 1/2¢, Jul. 178 1/2¢, Aug. 179 1/2¢, Sep. 180 1/2¢, Oct. 181 1/2¢, Nov. 182 1/2¢, Dec. 183 1/2¢, Jan. 184 1/2¢, Feb. 185 1/2¢, Mar. 186 1/2¢, Apr. 187 1/2¢, May 188 1/2¢, Jun. 189 1/2¢, Jul. 190 1/2¢, Aug. 191 1/2¢, Sep. 192 1/2¢, Oct. 193 1/2¢, Nov. 194 1/2¢, Dec. 195 1/2¢, Jan. 196 1/2¢, Feb. 197 1/2¢, Mar. 198 1/2¢, Apr. 199 1/2¢, May 200 1/2¢, Jun. 201 1/2¢, Jul. 202 1/2¢, Aug. 203 1/2¢, Sep. 204 1/2¢, Oct. 205 1/2¢, Nov. 206 1/2¢, Dec. 207 1/2¢, Jan. 208 1/2¢, Feb. 209 1/2¢, Mar. 210 1/2¢, Apr. 211 1/2¢, May 212 1/2¢, Jun. 213 1/2¢, Jul. 214 1/2¢, Aug. 215 1/2¢, Sep. 216 1/2¢, Oct. 217 1/2¢, Nov. 218 1/2¢, Dec. 219 1/2¢, Jan. 220 1/2¢, Feb. 221 1/2¢, Mar. 222 1/2¢, Apr. 223 1/2¢, May 224 1/2¢, Jun. 225 1/2¢, Jul. 226 1/2¢, Aug. 227 1/2¢, Sep. 228 1/2¢, Oct. 229 1/2¢, Nov. 230 1/2¢, Dec. 231 1/2¢, Jan. 232 1/2¢, Feb. 233 1/2¢, Mar. 234 1/2¢, Apr. 235 1/2¢, May 236 1/2¢, Jun. 237 1/2¢, Jul. 238 1/2¢, Aug. 239 1/2¢, Sep. 240 1/2¢, Oct. 241 1/2¢, Nov. 242 1/2¢, Dec. 243 1/2¢, Jan. 244 1/2¢, Feb. 245 1/2¢, Mar. 246 1/2¢, Apr. 247 1/2¢, May 248 1/2¢, Jun. 249 1/2¢, Jul. 250 1/2¢, Aug. 251 1/2¢, Sep. 252 1/2¢, Oct. 253 1/2¢, Nov. 254 1/2¢, Dec. 255 1/2¢, Jan. 256 1/2¢, Feb. 257 1/2¢, Mar. 258 1/2¢, Apr. 259 1/2¢, May 260 1/2¢, Jun. 261 1/2¢, Jul. 262 1/2¢, Aug. 263 1/2¢, Sep. 264 1/2¢, Oct. 265 1/2¢, Nov. 266 1/2¢, Dec. 267 1/2¢, Jan. 268 1/2¢, Feb. 269 1/2¢, Mar. 270 1/2¢, Apr. 271 1/2¢, May 272 1/2¢, Jun. 273 1/2¢, Jul. 274 1/2¢, Aug. 275 1/2¢, Sep. 276 1/2¢, Oct. 277 1/2¢, Nov. 278 1/2¢, Dec. 279 1/2¢, Jan. 280 1/2¢, Feb. 281 1/2¢, Mar. 282 1/2¢, Apr. 283 1/2¢, May 284 1/2¢, Jun. 285 1/2¢, Jul. 286 1/2¢, Aug. 287 1/2¢, Sep. 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